IN THE CLAIMS:

Claims 1 through 84 were previously cancelled.

85. (Currently Amended) A method for locating a plurality of terrestrial mobile stations, **M**, ~~when there is an occurrence of at least one of (A) and (B) following: (A) said terrestrial mobile station **M** being tracked, and (B) a request for locating said terrestrial mobile station **M**;~~ wherein said method uses wireless signal measurements obtained from transmissions between each said terrestrial mobile station **M** and a plurality of terrestrial communication stations, each capable of at least one of: wirelessly detecting said terrestrial mobile stations **M**, and wirelessly being detected by said terrestrial mobile stations **M**, comprising:

for each of the mobile stations **M** perform the following steps:

receiving first and second location related information, respectively, from at least first and second mobile station location estimators, wherein said location estimators provide different geographical indications of an unknown location of said mobile station **M** when said location estimators are supplied with corresponding input data obtained using wireless signal measurements obtained by transmissions between said mobile station **M** and the communication stations~~, the transmissions including spread spectrum signals~~;

~~wherein said first location estimator performs one or more of the following techniques (a) through (d) when supplied with said corresponding input data:~~

~~(a) a first technique for determining, for at least one of the communication stations, **CS**, at least one of (i) and (ii) following:~~

~~(i) a distance between the communication station **CS** and the mobile station **M**, said distance dependent upon signal time delay derived information, wherein for determining the distance, two-way communication between the mobile station **M** and the communication station **CS** is used, and~~

~~(ii) an angular orientation about the communication station **CS** of a direction of the mobile station **M** determined using a measurement of a wireless signal angle of arrival of wireless signals transmitted between the mobile station **M** and the communication station **CS**,~~

~~wherein said at least one communication station **CS** is stationary;~~

~~(b) a learning technique, wherein said learning technique uses a learned association for associating (b1) and (b2) following:~~

~~(b1) information obtained from at least one of signal strength and signal time delay measurements of wireless signals communicated between the mobile station **M** and the communication stations, and~~

~~(b2) data identifying a likely geographical indication for a location for the mobile station **M**,~~

~~wherein said association is learned by a training process using a plurality of data pairs, each said data pair including: first information identifying a known location of some mobile~~

~~station, and second information from wireless signal measurements communicated between said some mobile station and one or more of the communication stations when said some mobile station is at the known location;~~

~~(c) a stochastic technique, wherein said stochastic technique uses a statistical correlation for correlating (c1) and (c2) following:~~

~~(c1) information obtained from at least one of signal strength and signal time delay measurements of wireless signals between the mobile station **M** and the communication stations, and~~

~~(c2) data, **D**, wherein for each location $\mathbf{L_e}$ of a plurality of locations, said data **D** includes one or more wireless signal measurements related to a wireless communication between some mobile station different from the mobile station **M** when the different mobile station is substantially at $\mathbf{L_e}$, and,~~

~~wherein said correlation is used for determining a likely geographical indication, **GR**, for a location for the mobile station **M** and data indicative of a probability that the mobile station **M** is within the likely geographical indication **GR**;~~

~~(d) a signal location technique for determining a geographical indication (**L**) for a location of the mobile station **M**, wherein for determining the geographical indication **L**, (d1) - (d2) following hold:~~

~~(d1) the signal location technique is dependent upon characteristics of wireless signals obtained from wireless signal information communicated between the mobile station **M** and the communication stations; and~~

~~(d2) the signal location technique is dependent upon (i) and (ii) following: (i) a representation of each of a plurality of geographical locations, and (ii) for each of the geographical locations, corresponding wireless signal characteristics of previously obtained using transmissions between some mobile station ($\mathbf{M_d}$) different from **M**, and the communication stations, when the some mobile station $\mathbf{M_d}$ transmitted from approximately the geographical location;~~

~~wherein said signal location technique performs a step of determining **L** as being closer to one or more of the geographical locations of (d2)(i), when a greater similarity is determined between the corresponding wireless signal characteristics for the one or more of the geographical locations, and the characteristics of wireless signals of (d1);~~

~~wherein said determining step uses signal characteristics indicative of multipath for determining the similarity;~~

~~wherein said receiving step includes the first and second receiving steps following:~~

~~first receiving, from said first location estimator, in response to said first location estimator obtaining a first instance of its said corresponding input data for said at least one occurrence,~~ wherein the

first location related information includes ~~having~~ at least a first geographical indication for a location of the mobile station **M**;

~~second receiving, from said second location estimator, in response to said second location estimator obtaining a second instance of its said corresponding input data for said at least one occurrence,~~ wherein the second location related information includes ~~having~~ at least a second geographical indication for the location of the mobile station **M**;

wherein for locating the mobile station **M** in at least one location, at least one of said first and second geographical indications for **M** is dependent upon a delay time of a signal from at least one non-terrestrial wireless transmitter above and not supported on the Earth's surface, to **M** for determining a spatial range ~~between~~ for **M** ~~and the at least one non-terrestrial wireless transmitter~~; and

outputting a resulting location estimate of the mobile station **M**, a determination of said resulting location estimate is dependent upon at least one of (a) and (b) following: (a) a first value obtained from said first location related information, and (b) a second value obtained from said second location related information.

Please cancel Claims 86 and 87.

88. (Currently Amended) The method as claimed in Claim 85, further including a step of receiving a transmission, through a telecommunications network, of said first location estimator from a source site to an activation site for generating said first geographical indication;

wherein said step of receiving the transmission includes receiving an encoding of said first location estimator via the Internet.

Please cancel claim 89.

90. (Previously Presented) The method as claimed in Claim 85, further including a step of retrieving at least one of (i) and (ii) following, for a location estimator (**LE**) being one of at least one of the first and second location estimators,

(i) a selected set of geographical locations from an archive of geographical locations for a collection of one or more actual mobile station locations, said geographical locations of said archive generated by a location estimator $\mathbf{LE}_1$ wherein $\mathbf{LE}_1$ and **LE** are substantially effectively equivalent when generating said geographical locations using first data obtained from wireless signal measurements of transmissions between: (1) one or more of a plurality of mobile stations, at said actual locations, and (2) said plurality of communication stations;

wherein at least one of said archived geographical locations is selected for being included in said selected set by determining that a predetermined condition is satisfied by a value related to a distance between: (a) said corresponding one of said first and second

geographical indications for the location of the mobile station **M** received from **LE**, and (b) said at least one archived geographical location; and

(ii) data for more accurately identifying said one or more mobile station actual locations corresponding to the geographical locations in said selected set.

91. (Previously Presented) The method as claimed in Claim 85, further including, for at least one geographical indication, **GI**, of said first and second geographical indications, a step of obtaining a likelihood value that the at least one geographical indication **GI** includes said mobile station **M**, wherein said likelihood value is obtained using previous likely geographical indications for one or more mobile station locations generated by a location estimator **LE**, wherein **LE** and the location estimator that generated said at least one geographical indication **GI** are substantially effectively equivalent when generating geographical indications of mobile stations.

Claims 92 and 93 previously cancelled.

94. (Previously Presented) The method as claimed in Claim 85, further including performing a first simulation for predicting a likelihood of said mobile station **M** being in said first geographical indication, wherein said simulation uses pairs of location representations, wherein for each pair (P), a first member of the pair P includes a geographical indication ($\mathbf{GR_P}$) obtained from a location estimator LE, wherein LE and said first location estimator are substantially effectively equivalent when generating said geographical indication GR_P for locating some mobile station, and a second member of the pair P includes a representation of an independently determined location of the some mobile station.

95. (Currently Amended) The method as claimed in Claim 85, wherein at least one of said first and second location estimators utilize one of the following:

(a) a pattern recognition location technique for estimating a location of said mobile station **M** by recognizing a pattern of characteristics of said corresponding input data obtained from at least first and second transmission paths of multiple transmission paths of the transmissions between said mobile station **M** and at least one of the communication stations;

(b) a mobile base station estimator for estimating a location of said mobile station **M** from location information received from a mobile base station detecting wireless transmissions of said mobile station **M**; and

(c) a coverage area location technique for estimating a location of said mobile station **M** by determining an area of a wireless coverage area for one of said communication stations.

96. (Currently Amended) The method as claimed in Claim 85, wherein one of the first and second location estimators performs a pattern matching technique, wherein said pattern matching technique uses an association wherein said association is determined from a plurality of data pairs, each said data pair

including: first information identifying a location of some mobile station, and second information from wireless signal measurements communicated between said some mobile station and one or more of the communication stations when said some mobile station is at the location ~~at least one of the following (a) through (c) holds:~~

~~(a) for said learning technique, said association is provided, at least in part, by an artificial neural network for recognizing a pattern of characteristics of location information obtained from said wireless signal measurements;~~

~~(b)~~

~~said first technique provides the distance between the mobile station **M** and said at least one communication station using one or more of: a wireless signal time of arrival, a wireless signal time difference of arrival, and a wireless signal strength indication; and~~

~~(c) said stochastic technique provides said statistical correlation using one of: principle decomposition, least squares, and partial least squares~~.

97. (Currently Amended) A method for estimating, for each mobile station **M** of a plurality of mobile stations, one or more corresponding [[an]] unknown terrestrial locations[[, **L**,]] for **M** using wireless signal measurements obtained from transmissions between said mobile station **M** and a plurality of fixed location terrestrial communication stations, wherein each of said communications stations is substantially co-located with one or more of a transmitter and a receiver for wirelessly communicating with said mobile station **M**, comprising:

initiating one or more requests ~~for information related to the location of said~~ for locating the mobile station **M**, wherein the requests are for activating ~~with~~ one or more mobile station location evaluators ~~such that when said location evaluators are supplied with corresponding input data having values obtained using wireless signal measurements obtained via transmissions between said mobile station **M** substantially at **L**, and the communication stations,~~ for locating the mobile station **M**, said one or more location evaluators perform at least the first technique following, and at least one of the second and third ~~two of the following~~ techniques following ~~(i), (ii) and (iii)~~:

(i) a first technique for ~~estimating where~~ obtaining geographic location information for said mobile station **M** ~~is located~~ using signal time delay values ~~obtained from~~ for signals received at the mobile station **M** from ~~one or more~~ each of a plurality of satellites~~, wherein said first technique uses said signal time delay values determining one or more distances between said mobile station **M** and said one or more satellites~~;

(ii) a second technique for recognizing a pattern in wireless signal characteristics, wherein said second technique includes the steps of (a) and (b) following:

(a) associating, for each location $\mathbf{L_a}$ of a plurality of geographical locations, (a1) and (a2) following:

(a1) a representation of the geographical location $\mathbf{L_a}$, and

(a2) for the geographical location $\mathbf{L_a}$, corresponding information indicative of one or more characteristics of wireless signals previously transmitted between some mobile station ($\mathbf{M_2}$) and the communication stations, when the some mobile station $\mathbf{M_2}$ transmitted from approximately the geographical location $\mathbf{L_a}$, the mobile station $\mathbf{M_2}$ different from **M**; and

(b) determining one or more likely ~~location estimates~~ geographic location information for **M** by identifying a similarity in a pattern between (b1) and (b2) following: (b1) one or more wireless signal characteristics determined from wireless signals communicated between the mobile station **M** and the communication stations, and (b2) the information of (a2) for a collection of one or more of the plurality of geographical locations; and

(iii) a third technique, wherein said third technique uses a statistical correlation for correlating (c) and (d) following:

(c) values that are a function of at least one of: a signal strength and a signal time delay of wireless signals between said mobile station **M** and the communication stations, and

(d) information indicative of: a plurality of collections of wireless signal measurements, wherein for each said collection, there is a known location **S** where said collection is obtained from transmissions between said communication stations and some mobile station ($\mathbf{M_3}$) at the location **S**, $\mathbf{M_3}$ different from **M**;

wherein said correlation is used for determining corresponding geographic location information for ~~that~~ the mobile station **M** ~~is within a corresponding geographic area~~;

obtaining a first collection of one or more geographic estimations for ~~location estimates of~~ said mobile station **M**, wherein the one or more geographic estimations are obtained from said geographic location information of the one or more location evaluators ~~using said corresponding input data~~;

~~wherein for locating at least one mobile station $\mathbf{M_k}$ of the plurality of mobile stations, at least one of said one or more of the location evaluators determines a geographical indication for $\mathbf{M_k}$ using a delay time of a signal from at least one of the satellites to $\mathbf{M_k}$ for determining a spatial range between said mobile station $\mathbf{M_k}$ and the at least one satellite, and said step of obtaining obtains the geographical indication for $\mathbf{M_k}$ when $\mathbf{M_k}$ is an instance of **M**;~~

wherein ~~said step of obtaining requires~~ there is two way communication between the mobile station **M** and at least one of the communication stations ~~prior to~~ for obtaining at least one of the geographic estimations ~~performing any of said first, second and third techniques~~;

transmitting, to a predetermined destination via a communications network, resulting information for locating the ~~related to the location L of said~~ mobile station **M**, wherein said resulting information is dependent on at least said first collection of ~~location estimates~~;

wherein for locating at least one location of the mobile station **M**, a preference is given to using a corresponding instance of the geographic estimation form the first technique.

98. (Currently Amended) The method of Claim 97, further including ~~the following steps~~:

~~second~~ obtaining a location estimate for the resulting information using an output from an activation of the second technique~~, from a second set of said one or more location evaluators, a second collection of one or more location estimates using values obtained from wireless signal measurements for a time different from a time of the transmissions between the mobile station **M** and the communication stations for supplying said corresponding input data for the first collection;~~

~~determining, as part of said resulting information, a resulting location estimate of the mobile station **M**, wherein said resulting location estimate is dependent upon: (a) a first data obtained from said first collection of location estimates, and (b) a second data obtained from said second collection of location estimates~~.

99. (Currently Amended) A method for locating mobile stations at one or more unknown terrestrial locations using wireless signal measurements obtained from transmissions between said mobile stations and a plurality of fixed location terrestrial communication stations, wherein each of said communications stations includes one or more of a transmitter and a receiver for wirelessly communicating with said mobile stations, comprising:

receiving, from a plurality of location requesting sources, a plurality of input requests for locations of the mobile stations;

for each of the input requests, providing to one or more mobile station location determining sources, one or more location requests for location information related to a location of one of said mobile stations;

wherein said one or more location determining sources perform ~~at least two of~~ the following techniques (i), and (ii)~~, (iii) and (iv~~):

(i) a first technique for determining location information of said mobile stations, wherein for at least some geographical location of some mobile station **M1** of the mobile stations, the first technique outputs first data providing geographical information for locating **M1** using a signal time delay value dependent upon a first input obtained from a signal, S_1, received at the mobile station **M1** from a satellite, wherein said first technique uses said signal time delay value for determining at least one distance between said mobile station **M1** and the satellite;

(ii) a second technique for determining location information for said mobile stations, wherein for some mobile station **M2** of the mobile stations, the second technique outputs second data providing geographical information for locating **M2** by determining for a wireless signal communicated between the mobile station **M2** and at least one of the communication stations, one of:

(ii-1) a geographical extent corresponding to a detection of the wireless signal, and

(ii-2) a geographical extent obtained using a signal time delay measurement or signal strength measurement of the wireless signal;

wherein a two way communication between **M2** and the communication stations occurs for obtaining the wireless signal;

~~recognizing a pattern of characteristics of a second input obtained from wireless communications between M2 and the communication stations, wherein said pattern recognition is dependent upon an association that associates, for each location L of a plurality of mobile station locations, wireless signal characteristics between: (a) one or more of the communication stations, and (b) one of the mobile stations at the location L;~~

~~(iii) a third technique for determining location information for said mobile stations, wherein for at least some geographical location of some mobile station M3 of the mobile stations, and for at least a corresponding one of the communication stations CS that is responsive to transmissions from the mobile station M3, the third technique in response to a third input, outputs third data providing geographical information for locating M3 using one of (a) and (b) following:~~

~~(a) a distance between the communication station CS and the mobile station M3, said distance dependent upon measurements of a time delay of signals transmitted between the mobile station M3 and the communication station CS, said measurements of a time delay obtained from the third input, wherein for determining the distance, two-way communication between the mobile station M3 and the communication station CS is used, and~~

~~(b) a direction of M3 from CS, wherein the third input includes a measurement of a wireless signal angle of arrival between the mobile station M3 and the communication station **CS**, the measurement indicative of an angular orientation about the communication station CS of a direction of the wireless transmissions to CS from M3, wherein the direction of M3 from CS is determined using the measurement; and~~

~~(iv) a fourth technique for determining information for likely locations of the mobile stations, wherein for each mobile station M4 of at least some of the mobile stations, the fourth technique outputs fourth data providing geographical information for locating M4, wherein (e) - (e) following hold:~~

~~(e) the fourth technique is dependent upon signal data of a fourth input, wherein the signal data is obtained from wireless signal information communicated between the mobile station M4 and the communication stations,~~

~~(d) the fourth technique is dependent upon (d1) and (d2) following: (d1) a representation of each of a plurality of geographical locations, and (d2) for each location, L_d, of the geographical locations, corresponding collected signal information previously obtained using transmissions between some one of the mobile stations and the communication stations, when the some one mobile station transmitted from approximately the geographical location L_d, and~~

~~(e) the fourth technique determines one or more of the geographical location representations that are likely to be approximate to at least one unknown location of the mobile station M4;~~

first obtaining, in response to a first of the location requests received from a first of the requesting sources, first output location data for locating a first of the mobile stations, wherein the first output location data is obtained from ~~at least first location information, **FLI**, of a first location of a first of said mobile stations, said first location information **FLI** is determined using at least~~ said first data ~~from~~ output by an instance of said first technique, wherein the first mobile station corresponds to **M1**;

~~first determining, using said first location information **FLI**~~, wherein the first output location data is obtained according to a first output criteria for ~~a corresponding destination for~~ the first request, said first output location data including a representation identifying a first geographical indication of the first mobile station ~~location~~;

second obtaining, in response to a second of the location requests received from a second of the requesting sources, second output location data for locating a second of the mobile stations, wherein the second output location data is obtained from ~~at least second location information, **SLI**, of a second location of a second of said mobile stations, said second location information **SLI** dependent upon an instance of one or more of: (1) said third data wherein the second mobile station is an occurrence of M3, and (2) one of~~ said second ~~or fourth~~ data output by an instance of the second technique, wherein the second mobile station corresponds to ~~is a respective occurrence of the corresponding one of the mobile stations~~ **M2**~~, and M4~~;

~~second determining, using said second location information **SLI**~~, wherein the second output location data is obtained according to a second output criteria for ~~a corresponding destination for~~ the second request, said second output location data including a representation identifying a second geographical indication of the second mobile station ~~location~~;

wherein for at least one of said first and second output criteria there is an output criteria for another of the location requests that is different from said at least one output criteria;

wherein one or more of the first and second output criteria includes data for location accuracy, or data for location determining repetition;

first transmitting said first output location data to [[its]] a corresponding destination via a communications network; and

second transmitting said second output location data to [[its]] a corresponding destination via a communications network.

Claims 100 through 105 were previously cancelled.

106. (Currently Amended) A location system for locating mobile stations using wireless signal data obtained from transmissions between said mobile stations and a network of fixed location communication stations, wherein said communication stations are cooperatively linked for use in locating said mobile stations, comprising:

an archive for storing a plurality of data collections, wherein for each of a plurality geographical locations, there is one of said data collections having (a1) and (a2) following:

(a1) a representation of the geographical location, and

(a2) a set of said wireless signal data obtained using transmissions between one of said mobile stations and the network, wherein the one mobile station transmits from approximately the geographical location of (a1);

an interface for communicating with one or more ~~a plurality of~~ location estimators, ~~one or more~~ at least one of which are included in the category (b1) following, and ~~one or mor~~e at least one of said location estimators are included in the category (b2) following:

(b1) a first category of adaptable location estimators, wherein each said adaptable location estimator generates a geographical location estimate for each mobile station ($\mathbf{M_{b1}}$) of a plurality of said mobile stations when said adaptable location estimator receives first corresponding input values obtained from transmissions between said mobile station $\mathbf{M_{b1}}$ and a plurality of the communication stations, and wherein each said adaptable location estimator adapts its generated geographical location estimates according to changes in said data collections of said archive;

(b2) said second category of location estimators, wherein each said location estimator of said second category determines a location for each mobile station ($\mathbf{M_{b2}}$) of a plurality of said mobile stations by using second corresponding input values obtained from wireless signals, S, received by $\mathbf{M_{b2}}$, or another of said mobile stations, from a plurality of non-terrestrial transmitting stations above and not supported on the Earth's surface, wherein said wireless signals S provide time values for determining a spatial range between: (i) $\mathbf{M_{b2}}$ or the another mobile station, and (ii) each of at least two of the non-terrestrial stations, wherein the spatial ranges are determined from transmission times for each of the wireless signals transmitted by the at least two of the non-terrestrial transmitting stations;

wherein a location estimator selector ~~for selecting one or more of said plurality of location estimators for generating mobile station location estimates;~~

~~wherein for locating one of said mobile stations, M, said location estimator selector~~ selects one or more of: one of said adaptable location estimators, and one of said location estimators of said second

category according to whether said first corresponding input values are available for **M** being an instance of $\mathbf{M_{b1}}$, or said second corresponding input values are available for **M** being an instance of $\mathbf{M_{b2}}$.

107. (Previously Presented) The location system of Claim 106, further including a combiner location estimator for determining a resulting location estimate of said mobile station **M** by combining a plurality of location estimates from the selected one or more location estimators.

Claims 108 and 109 were previously cancelled.

Please cancel Claim 110.

Claims 111 and 112 were previously cancelled.

113. (Currently Amended) A location system for locating [[a]] wireless mobile stations, each ~~that is~~ capable of using wireless signals in communicating with a plurality of networked stationary communication stations, comprising:

a transceiver: (a) for ~~at least~~ detecting a direction of at least a portion of the wireless signals transmitted from a corresponding one of the mobile stations, and (b) for communicating with said networked communication stations information related to a location of said wireless mobile stations;

a signal analyzer for determining whether a detected wireless signal from said mobile stations has been one of: reflected and deflected;

one or more location estimators for providing one or more location estimates of said mobile stations ~~by using wireless signals transmitted from said mobile station~~, wherein at least one of said location estimators utilizes the wireless signals from said mobile stations; and

a transport for moving at least said transceiver when locating said wireless mobile stations;

wherein:

(a) for locating at least one of the mobile stations, the direction of the transmitted signals from the at least one mobile station is used,

(b) for locating at least one of the mobile stations, the transceiver communications with the communication stations is used,

(c) for locating at least one of the mobile stations, an output from the signal analyzer is used, and

(d) for locating at least one of the mobile stations, of the one or more location estimates therefor is used.

114. (Currently Amended) The location system as claimed in Claim 113, wherein said signal analyzer includes a comparator for comparing: (a) a distance of one of said mobile stations from said transceiver using a signal strength of said wireless signals from said one mobile station, with (b) a

distance of said one mobile station from said transceiver using a signal time delay measurement of wireless signal from said one mobile station.

115. (Previously Presented) The location system as claimed in Claim 113, further including one or more transceiver location estimators for estimating a location of said transceiver, wherein at least one of said transceiver location estimators uses data from wireless signals communicated between: (i) said transport, and (ii) one of: said networked communication stations and a global positioning satellite.

116. (Previously Presented) The location system as claimed in Claim 115, further including a deadreckoning component operatively movable with movements of said transport for estimating a change in a location of said transceiver, wherein said deadreckoning component determines incremental updates to at least one location estimate of said transport output by at least one of said transceiver location estimators.

Claim 117 was previously cancelled.

118. (Currently Amended) A method for locating a wireless mobile station, comprising:

~~repeatedly performing the following steps (A1) through (A3) for locating the mobile station, wherein there is at least a first and a second mobile station location technique, each of the location techniques able to provide corresponding location information of a location of the mobile station at some time during said step of repeatedly performing;~~

(A1) receiving ~~the corresponding~~ location information for [[of]] the mobile station ~~from~~ by ~~at least one of the first and a second mobile station location techniques, wherein~~:

(a) ~~said~~ first ~~location technique determines~~ obtaining a first instance of the location information ~~of the mobile station~~ when supplied with ~~first data, wherein said first data includes timing values~~ signal time delay data obtained from wireless ~~timing~~ signal[[s]] data received by the mobile station from ~~one or more~~ a satellite[[s]], wherein ~~the first location technique determines the first location information using~~ a geographic range corresponding to the signal time delay data is used to determine the first instance ~~information indicative of a distance between the mobile station and at least one of the one or more satellites~~;

wherein communication between the mobile station and at least one terrestrial transceiver is used to improve said first instance; and

(b) ~~said~~ second ~~location technique determines~~ obtaining a second instance of the location information of the mobile station when supplied with second data indicative of ~~, wherein said second location technique uses values from said second data that are obtained using~~ time delays of wireless signals transmitted between the mobile station and a plurality of terrestrial transceivers cooperatively linked together for use in two way communication with the mobile station, wherein ~~the second location technique~~

~~determines the second location information by determining~~ at least one of (i) and (ii) following are used for obtaining the second instance: (i) a representation of a locus of locations having substantially a same time difference of arrival for wireless signals communicated between: the mobile station, and each of at least two of the transceivers, and (ii) an area obtained by a correspondence between surveyed wireless signaling characteristics of the area, and wireless signals communicated between the mobile station and the transceivers;

wherein the second instance does not depend on a geographical location of the mobile station obtained from information indicative of a distance between the mobile station and at least one of the one or more satellites;

(A2) determining ~~at least one~~ resulting location information, ~~of~~ for each of one or more locations of said mobile station, using at least one of: (a) a first value obtained from ~~an instance of~~ the first instance ~~location information received from said first location technique~~, and (b) a second value obtained from ~~an instance of~~ the second instance ~~location information received from said second location technique~~;

(A3) outputting said resulting location information for each of the one or more locations ~~for display on a display device, wherein said resulting location information is displayed as at least one location of the mobile station on a map~~;

wherein: the first value is used to obtain the resulting information for one of the locations, and the second value is used to obtain the resulting information for one of the locations ~~(1) an estimate of a first location of the mobile station is included in an instance of said first location information obtained from an instance of the first data for substantially the first location, and (2) an estimate of a second location of the mobile station is included in an instance of said second location information obtained from an instance of the second data for substantially the second location; and~~

~~wherein for at least one location of the mobile station one of: (3) said first location technique includes a step of using wireless signals, S, between the mobile station and at least one terrestrial transceiver to improve a performance of said first location information, and (4) said second location technique determines an area by a correspondence between surveyed wireless signaling characteristics of the area according to (A1)(b)(ii)~~.

119. (Currently Amended) A method for locating a plurality of wireless mobile stations, wherein for each of the wireless mobile stations, ~~M,~~ measurements of wireless signals are used such that at least one of:

(i) said measurements, and

(ii) said wireless signals,

is transmitted between said mobile station ~~M~~ and at least one of a plurality of fixed location communication stations, each communication station capable of at least one of receiving wireless signals from, and transmitting wireless signals to said mobile station ~~M~~, comprising:

receiving, from a first mobile station location estimator corresponding first information, and from a second mobile station location estimator corresponding second information, wherein each of the ~~each of at least first and second mobile station location estimators,~~ corresponding first and second information ~~related~~ relates to geographical approximations for a location of a mobile station ($\mathbf{M_1}$) of the mobile stations, wherein:

(a) for determining a ~~likely~~ geographical approximation, GA_A, for a location, L_A, of a second of the mobile stations ($\mathbf{M_2}$) at a time T_A, said first location estimator generates GA_A without requiring a prior ~~likely~~ geographical location approximation generated by said second location estimator for locating $\mathbf{M_2}$ at substantially the location L_A at substantially the time T_A, and,

(b) for estimating a ~~likely~~ geographical approximation, GA_B, for a location, L_B, of a third one of the mobile stations ($\mathbf{M_3}$) at a time T_B, said second location estimator generates GA_B without requiring a prior ~~likely~~ geographical location approximation generated by said first location estimator for locating $\mathbf{M_3}$ at the location L_B at substantially the time T_B;

wherein for determining the first information, ~~each of~~ said first mobile station location estimator activates or receives an output from a signal processing technique for estimating a location of the mobile station $\mathbf{M_1}$ when supplied with data obtained from wireless signals received by $\mathbf{M_1}$ from one or more transmitting stations above and not supported on the Earth's surface, wherein said wireless signals provide time values, and said signal processing technique uses at least one differential between a time of transmission and a time of arrival for the wireless signals transmitted by a plurality of the transmitting stations for determining; ~~and second mobile station location estimators activates or receives an output from at least one of the techniques (A1) through (A5) following:~~

~~(A1) one or more coverage area analysis techniques for locating an instance $\mathbf{I_1}$ of one of the plurality of mobile stations when supplied with first data obtained from wireless signal measurements communicated between $\mathbf{I_1}$ and one or more of said plurality of the communication stations,~~

~~wherein each said coverage area analysis technique obtains, when activated for $\mathbf{I_1}$, at least one location estimate of $\mathbf{I_1}$ that is indicative of a wireless coverage area of one of said communication stations;~~

~~(A2) a second technique, wherein said second technique estimates a location of an instance $\mathbf{I_2}$ of one of the plurality of mobile stations, wherein when supplied with second data obtained from wireless signal measurements communicated between $\mathbf{I_2}$ and one or more of said plurality of communication stations, said second technique determines a~~

~~correspondence between (1) and (2) following: (1) at least one a first value derived from said second data, and (2) wireless survey data (D) wherein D is obtained using second values, wherein for each second value, it is derived from mobile station wireless signal measurements at a known geographical location;~~

~~(A3) a locus computing technique for estimating a location of an instance I_3 of one of the plurality of mobile stations when supplied with third data obtained from wireless signal measurements communicated between I_3 and two or more of said plurality of communication stations, wherein said locus computing technique utilizes measurements (S) of wireless signals from said third data for determining at least one locus of locations for I_3;~~

~~wherein at least one of said measurements S is obtained using a signal time delay between I_3 and at least one of the two or more communication stations; wherein there is two way wireless communication between I_3 and at least one of the at least one communication station;~~

~~(A4) a direction of arrival technique for estimating a location of an instance I_4 of one of the plurality of mobile stations when supplied with fourth data obtained from wireless signal measurements communicated between I_4 and one of said communication stations (CS_4), wherein said direction of arrival technique determines a location estimate of I_4 using, from the fourth data, a direction from which wireless signals arrive at CS_4 from I_4;~~

~~wherein said fourth data is indicative of a signal direction having a resolution substantially less than 60 degrees;~~

~~(A5) a signal processing technique for estimating a location of an instance I_5 of one of the plurality of mobile stations when supplied with fifth data obtained from wireless signals received by I_5 from one or more transmitting stations above and not supported on the earth's surface, wherein said wireless signals provide time values, and said signal processing technique determines at least one differential between a time of transmission and a time of arrival for the wireless signals transmitted by a plurality of the transmitting stations;~~

~~wherein for at least some mobile station M_k of the mobile stations, at least said first location estimator activates or receives an output from an instance of said technique of (A5) for locating M_k;~~

determining a resulting location estimate of said mobile station M_1;

wherein said step of determining includes ~~at least~~ one of the substeps (B1) through (B3) following:

(B1) when said first and second information include, respectively, first and second ~~likely~~ geographical approximations of said mobile station $\mathbf{M_1}$, combining said first and second ~~likely~~ geographical approximations so that said resulting location estimate is dependent on each of said first and second location ~~likely~~ geographical approximations;

(B2) ~~obtaining~~ changing one or more rating values for rating at least one of said first and second information, wherein said rating values are indicative of ~~relative~~ expected performances of said first and second location information ~~estimators~~ in locating ~~said one~~ the mobile station $\mathbf{M_1}$; and

(B3) selecting one of said first and second information for receiving preference in determining said resulting location.

120. (Previously Presented) The method of Claim 119, wherein said mobile station $\mathbf{M_1}$ is part of a mobile base station.

121. (Currently Amended) A method for locating a terrestrial wireless mobile station capable of wireless two way communication with a plurality of fixed location terrestrial stations, comprising:

receiving, ~~over time~~ from a plurality of mobile station location techniques, a plurality of instances of location information having one or more location estimates of the mobile station, wherein said location techniques generate the instances of location information when said location techniques are supplied with corresponding input information upon which their location information is dependent, and wherein the corresponding input information is at least partially derived from measurements of wireless signals transmitted from or received at the mobile station;

wherein said step of receiving includes steps (a) and (b) following:

(a) first receiving, from a first of said location techniques, first location information for the mobile station, wherein said corresponding input information for said first location technique includes timing data from wireless signals transmitted from one or more global positioning satellites, and received by the mobile station, wherein said first location technique also uses information dependent upon a location of a terrestrial receiver, TS, that receives wireless transmissions from the mobile station, and resulting in the first location information being dependent on the location of TS and the timing data, wherein TS is remote from the mobile station;

(b) second receiving, from a second of said location techniques, second location information for the mobile station, wherein said corresponding input information for said second location technique includes data that is a function of a signal time delay of wireless signals transmitted between the wireless mobile station and one of said plurality of fixed location terrestrial stations during a plurality of transmissions between the mobile station and the one terrestrial station;

wherein for obtaining the corresponding input information for the second location technique, there is at least one transmission from the mobile station to the one terrestrial station, and at least one transmission from the one terrestrial station to the mobiles station, and wherein said second location information is determined by said second location technique at a ~~terrestrial~~ site whose location is spaced apart from ~~independent of a movement of~~ the mobile station;

determining, a plurality of ~~consecutive~~ resulting location estimates for ~~tracking~~ the mobile station, wherein said step of determining includes steps (c) and (d) following:

(c) obtaining~~, for~~ at least one ~~time during the tracking, a corresponding first one~~ of said resulting location estimates ~~of the mobile station~~ using an instance ($\mathbf{I_1}$) of said first location information for locating the mobile station; and

(d) obtaining~~, for~~ at least one ~~time during the tracking, a corresponding second one~~ of said resulting location estimates ~~of the mobile station~~ using an instance ($\mathbf{I_2}$) of said second location information for locating the mobile station.

122. (Previously Presented) The method as claimed in Claim 121, wherein said step of determining includes:

establishing a priority between a location estimate of said instance $\mathbf{I_1}$ of the first location information, and a location estimate of said instance $\mathbf{I_2}$ of the second location information.

123. (Currently Amended) The method as claimed in Claim 122, wherein said step of establishing a priority includes obtaining a confidence value for one or more of: (a) ~~said~~ a first location estimate for said instance $\mathbf{I_1}$ of the first location information; and (b) ~~said~~ a second location estimate for said instance $\mathbf{I_2}$ of the second location information;

wherein each said confidence value is indicative of a likelihood of the mobile station having a location represented by ~~said~~ a corresponding one of the first and second location estimates for the confidence value.

124. (Previously Presented) The method as claimed in Claim 121, wherein said step of determining includes preferring a location estimate of said instance $\mathbf{I_1}$ of the first location information over a location estimate of said instance $\mathbf{I_2}$ of the second location information when both are available for substantially a same location of the mobile station.

125. (Currently Amended) The method as claimed in Claim 121, wherein said step of determining includes, for at least one of said resulting location estimates, determining one or more of: (a) a velocity of the mobile station, (b) an acceleration of the mobile station, and (c) one or more geographical features ~~near~~ determined using said at least one resulting location estimate.

126. (Currently Amended) A method for providing a location estimate of a wireless mobile station using measurements of wireless signals, ~~comprising:~~

wherein for receiving ~~first providing, when available,~~ a first collection of measurements related to signal time delay of wireless signals, the wireless signals ~~transmitted between~~ received by said mobile station and transmitted from one or more satellites, there is a predetermined corresponding location technique;

~~to a first~~ wherein when provided with the first collection, the predetermined corresponding location technique uses the first collection to determine a location for the mobile station;

wherein for receiving ~~second providing, to a second location technique remote from and independent of a movement of the mobile station,~~ a second collection of measurements obtained from wireless signals transmitted between said mobile station and one or more fixed location terrestrial stations, at least when said first collection is not available, there is a predetermined corresponding location technique;

wherein said second collection includes signal time delay data of wireless signals transmitted between the mobile station and the fixed location terrestrial stations, there being at least one wireless transmission from the mobile station to the one or more fixed location terrestrial stations in order to provide the predetermined corresponding location technique for receiving the second collection with the second collection;

wherein said second collection of measurements is used by the corresponding location technique for receiving the second collection to determine ~~location technique determines~~ a location estimate of the mobile station by determining a locus of locations from at least one of the fixed location terrestrial stations, wherein for locations identified by said locus of locations, a signal time delay dependent condition is satisfied using the signal time delay data;

comprising:

first obtaining first location information of said mobile station when said ~~first~~ corresponding location technique for using the first collection is supplied with an instance of said first collection;

second obtaining second location information of said mobile station when said ~~second~~ corresponding location technique for receiving the second collection is supplied with an instance of said second collection; and

~~accessing at least one value related to a quality of at least one of said first location information and said second location information; and~~

outputting, to a source ~~requesting~~ for accessing location data for said mobile station, resulting location information that is dependent upon: at least one of said first and second location information, and also dependent upon ~~said~~ data for indicating a likelihood of the mobile station being in a geographical extent represented by of at least one of said first location information and said second location information ~~at least one value~~.

127. (Currently Amended) The method as claimed in Claim 126, wherein the data for indicating a likelihood includes first data indicative of a likelihood of the mobile station being in a geographical extent represented by the said first location information, and includes second data indicative of a likelihood of the mobile station being in a geographical extent represented by the second location information ~~further including receiving a signal from the mobile station for determining a location of the mobile station~~.

128. (Currently Amended) The method of Claim 126, wherein said step of outputting includes ~~some~~ at least one of:

(a) ~~sending said resulting location through a communications network to a known destination;~~

~~(b)~~ preferring one of said first and second location information over the other when both are available for locating the mobile station; and

(b[[c]]) combining said first and second location information when both are available for locating the mobile station ~~at substantially a same time~~.

129. (Previously Presented) The method of Claim 126, wherein said signal time delay dependent condition includes obtaining one of a time of arrival and a time difference of arrival related to wireless signals transmitted between the mobile station and the at least one of the fixed location terrestrial stations.

130. (Currently Amended) The method of Claim 126, further ~~wherein at least one of said steps of first and second providing~~ includes a step of transmitting one of said first and second collections on at least a portion of the Internet.

Please cancel Claim 131.

132. (Currently Amended) The method as claimed in Claim [[131]] 454, wherein said mobile station **M** is one of: (1) co-located with a process that activates at least one of said location evaluators; and (2) includes a process that activates at least one of said location evaluators.

Please cancel Claim 133.

Please cancel Claim 134.

135. (Currently Amended) The method of Claim 468 [[134]], further including a step of outputting said resulting location estimate to a location identified by said location request.

Claim 136 was previously cancelled.

137. (Currently Amended) A method for locating a mobile station **M** ~~when there is at least one occurrence of:~~

~~(1) said mobile station **M** being tracked, and~~

~~(2) a request for locating said mobile station **M**,~~

wherein said method uses wireless signal measurements obtained from transmissions between said mobile station **M** and a plurality of fixed location communication stations, wherein each of said communication stations includes one or more of a transmitter and a receiver for wirelessly communicating with said mobile station **M**;

wherein first and second mobile station location evaluators are available, wherein each of said location evaluators determine location related information for locating said mobile station **M** as a result of said location evaluator being supplied with data having values obtained from wireless signal measurements, wherein (A) and (B) following hold:

(A) said first location evaluator performs one or more of the following techniques (i), (ii), (iii) and (iv) as a result of said techniques being supplied with a corresponding instance of said data:

(i) a first technique for determining a first resulting data related to a location of the mobile station **M** from a first corresponding instance of said data, the first corresponding instance of said data dependent upon a two way communication between the mobile station **M** and at least one of the communication stations **CS**,

wherein one of: a wireless signal angle of arrival, and a time difference of arrival between the mobile station **M** and the at least one of the communication stations **CS** from the first corresponding instance of said data is used for determining said first resulting data;

(ii) a second technique for determining a second resulting data related to a location of the mobile station **M**, using timing values from a second corresponding instance of said data obtained from signals received at the mobile station **M** from ~~one or more~~ a plurality of satellites wherein the second technique uses wireless signals between the mobile station **M** and at least one of the communication stations to improve a performance for obtaining the second resulting data;

(iii) a third technique for determining a third resulting data related to a location of the mobile station **M** by recognizing signal characteristics from a third corresponding instance of said data, wherein said third technique includes the steps of (a) and (b) following:

(a) accessing information obtained from an association that associates, for each geographical location (**L**) of a plurality of geographical locations, (a1) and (a2) following:

(a1) a representation of the geographical location **L**, and

(a2) for the geographical location **L**, corresponding signal information indicative of at least one characteristic of a signal **S** previously transmitted between some mobile station, $\mathbf{M_L}$, and one or more of the

communication stations, when the some mobile station $\mathbf{M_L}$ transmitted **S** from approximately the geographical location **L**;

wherein for at least most of said geographical locations **L**, $\mathbf{M_L}$ is different from the mobile station **M**;

(b) determining one or more likely location estimates for the mobile station **M** from a similarity between (b1) and (b2) following:

(b1) the third corresponding instance of said data, the third corresponding instance including values for one or more signal characteristics determined from wireless signals communicated between the mobile station **M** and the communication stations, wherein said signal characteristics include at least a first measurement of a non-line of sight signal transmission between the mobile station **M** and one of the communication stations, and

(b2) a portion of the accessed information that is indicative of the signal information of (a2); and

(iv) a fourth technique for determining a fourth resulting data related to a location of the mobile station **M**, wherein said fourth technique statistically determines an expected location of the mobile station M by correlating (c) and (d) following:

(c) wireless signal related values obtained from a fourth corresponding instance of said data, and

(d) data, **D**, wherein for each location $\mathbf{L_D}$ of a plurality of locations, said data **D** includes one or more wireless signal measurements related to a wireless communication between some mobile station different from the mobile station **M** when the different mobile station is substantially at $\mathbf{L_D}$,

wherein said correlation is used for determining a likely geographical indication, **GR**, for a location for the mobile station **M**; and

(B) for said one or more of said techniques performed by said first location evaluator, said second location evaluator performs a different combination of one or more of said first, second, third and fourth techniques when supplied with corresponding instances of said data for the one or more techniques of said different combination of techniques;

comprising:

first obtaining, from said first location evaluator, first location related information, for ~~said~~ at least one ~~occurrence~~ location of **M**, as a result of one or more of the first, second, third and fourth corresponding instances of data being used by their respective one or more of the techniques performed by the first location evaluator;

second obtaining, from said second location evaluator, second location related information, for ~~said~~ at least one ~~occurrence~~ location of **M**, as a result of one or more of the first, second, third and fourth

corresponding instances being used by their respective said one or more of the techniques performed by second location evaluator;

wherein for locating the mobile station **M**, at least one of said first and second location evaluators determines a corresponding one of said first and second location related information using said second resulting data;

~~wherein for at least one substantially same location of the mobile station **M**, each of said first and second location related information is obtained;~~ and

third obtaining ~~determining~~ a resulting location estimate of the mobile station **M** dependent upon at least one of: (a) ~~a first value obtained from~~ said first location related information, and (b) ~~a second value obtained from~~ said second location related information.

138. (Currently Amended) The method of Claim 137, wherein one or more of:

(a) ~~said first technique includes a step of performing one of a triangulation and a trilateration;~~

~~(b)~~ said third technique includes a step of ~~activating an artificial neural network~~ changing the third resulting data with a change to the association; and

(b[[c]]) said fourth technique includes a step of performing one of: a principle decomposition analysis, a least squares analysis, and a partial least squares analysis~~; and~~

~~(d) the first resulting data is dependent on a representation of a locus of locations for **M** from at least one of the fixed location terrestrial stations~~;

wherein at least one of the steps of changing and performing is activated for obtaining the resulting location estimate.

Claim 139 was previously cancelled.

140. (Previously Presented) A method for locating a mobile station using wireless signal measurements obtained from transmissions between said mobile station and at least one of a plurality of terrestrial transceivers capable of wirelessly detecting said mobile station, comprising:

providing access to at least two of the location techniques (a) through (c) following:

(a) a first technique for triangulating or trilaterating a location of the mobile station, wherein for each transceiver **T** of three or more of the transceivers, one of: a signal time of arrival, and a signal time difference of arrival between the mobile station and the transceiver **T** is determined using a first input obtained from the wireless signal measurements,

wherein for at least one of the three or more transceivers $\mathbf{T_0}$, the signals for obtaining the wireless signal measurements are received at the transceiver $\mathbf{T_0}$ during a plurality of wireless signal transmissions between the mobile station and the transceiver $\mathbf{T_0}$, with at least one of the transmissions being from the mobile station to the transceiver $\mathbf{T_0}$, and at least one of the transmissions being from the transceiver $\mathbf{T_0}$ to the mobile station;

(b) a second technique using a second input obtained from one or more transmissions between the mobile station and the transceivers, said second input including time delay measurements of signals received at the mobile station from one or more satellites;

(c) a third technique that determines a location of the mobile station by using a plurality of pairs of (i) and (ii) following:

(i) characteristics of wireless signals communicated between some mobile station and one or more of the transceivers, and

(ii) a location of said some mobile station during the communication,

wherein when said third technique is supplied with a third input of characteristics of wireless signals communicated between said mobile station and one or more of the transceivers, data indicative of a location of the mobile station is obtained from a similarity between the third input and the characteristics of wireless signals of (c)(i);

determining whether at least said second technique has its corresponding input available for determining a first location estimate of said mobile station;

determining a second location estimate of said mobile station by activating an accessible one of said location techniques different from said second technique when the corresponding input for said different technique is available;

receiving at least one of said first and second location estimates;

obtaining resulting location information for transmitting on a communications network, wherein said resulting location information is obtained using at least one of said first location estimate and said second location estimate;

wherein when said mobile station is at a first location, an instance of at least said first location estimate is used in said obtaining step for obtaining a first corresponding instance of said resulting location information, and when said mobile station is at a second location, an instance of at least said second location estimate is used in said obtaining step for obtaining a second corresponding instance of said resulting location information; and

wherein for at least one of the first and the second locations, said obtaining step includes one of: (1) a step of improving upon said instance of at least said first location estimate, and (2) a step of providing information indicative of an accuracy of said first corresponding instance of said resulting location information.

141. (Previously Presented) The method as claimed in Claim 140, wherein at least two of said location techniques generate location estimates of said mobile station wherein neither of said at least two location techniques depend upon the other one for their corresponding input to be available.

142. (Currently Amended) A method for locating a mobile station, **M**, of a plurality of mobile stations using wireless signal measurements obtained from transmissions between the mobile station **M** and at least one of a plurality of communication stations, wherein each of said communication stations

includes one or more of a transmitter and a receiver for wirelessly communicating with each of the mobile stations, comprising:

providing access to at least first and second location estimators for estimating a location of the mobile station **M**, wherein for said first location estimator to estimate a location of the mobile station **M**, said first location estimator is dependent upon ~~a result from a first location technique that uses~~ a location representation from each of ~~a first set of~~ one or more of the location techniques of the following (a) through (e) location technique categories ~~and no other of the following (a) through (e) location technique categories~~, and for said second location estimator to estimate a location of the mobile station **M**, said second estimator is dependent upon a location representation from ~~is at least one of (A) and (B) following: (A) dependent upon a result from a second location technique included in a different~~ one of the following (a) through (e) location technique categories, wherein the corresponding input for at least one of the first and second location estimators includes wireless location indicative data that is different from the wireless location indicative data included in the corresponding input of the other of the first and second location estimators ~~from the first set, and (B) uses at least one of the following location techniques (a) through (e) to obtain, for at least some instance of locating one of the mobile stations ($\mathbf{M_j}$), a location estimate that is effectively different from a corresponding location estimate of $\mathbf{M_j}$ by said first location estimator~~;

the above cited ~~first and second~~ location technique categories include ~~one of more of~~:

(a) ~~one of a~~ trilateration and [[a]] triangulation techniques for determining a location estimate of each mobile station ($\mathbf{M_a}$) of at least some of the mobile stations at a site not co-located with the mobile station $\mathbf{M_a}$, wherein for some ~~three or more~~ of the communication stations in communication with the mobile station $\mathbf{M_a}$, one of: a wireless signal time of arrival, and a wireless signal time difference of arrival between the mobile station $\mathbf{M_a}$ and the some ~~three or more~~ communication stations is obtained using a first input obtained from timing measurements of wireless signal measurements obtained from transmissions between the mobile station $\mathbf{M_a}$ and the communication stations;

wherein for at least one of the some ~~three or more~~ communication stations, **CS**, the timing measurements are obtained from signals communicated during a plurality of wireless signal transmissions between the mobile station $\mathbf{M_a}$ and **CS**, with at least one of the transmissions being from the mobile station $\mathbf{M_a}$ to **CS**;

(b) a stochastic technique for determining a location estimate of each mobile station ($\mathbf{M_b}$) of at least some of the mobile stations, wherein said stochastic technique uses a statistical correlation for correlating (i) and (ii) following:

(i) a second input obtained from wireless signal measurements obtained from transmissions between the mobile station $\mathbf{M_b}$ and the communication stations, and

(ii) data, **D**, wherein for each location ($\mathbf{L_B}$) of a plurality of locations, said data **D** includes one or more wireless signal measurements related to a wireless communication between some mobile station that is substantially at $\mathbf{L_B}$;

wherein for at least most of said geographical locations $\mathbf{L_B}$, said some mobile station is different from the mobile station $\mathbf{M_b}$; and

wherein said correlation is used for determining a likely geographical range, **GR**, for a location for the mobile station $\mathbf{M_b}$ and data indicative of a probability that the mobile station $\mathbf{M_b}$ is within the likely geographical range **GR**;

(c) a learning technique for determining a location estimate of each mobile station ($\mathbf{M_c}$) of more than one of the mobile stations, by learning an association, wherein said association is determined by a training process using a plurality of data pairs, each said pair including: first information indicative of a location $\mathbf{L_C}$ of some mobile station ($\mathbf{M_i}$), and second information from wireless signal measurements between said some mobile station $\mathbf{M_i}$ and one or more of the communication stations when said some mobile station $\mathbf{M_i}$ is at the location $\mathbf{L_C}$,

wherein when said learning technique is supplied with a third input obtained from the wireless signal measurements obtained from transmissions between the mobile station $\mathbf{M_c}$ and at least one of a plurality of the communication stations, data indicative of a location for the mobile station $\mathbf{M_c}$ is determined;

(d) a pattern recognition location technique for estimating a location of each mobile station ($\mathbf{M_d}$) of more than one of the mobile stations, wherein said pattern recognition location technique estimates a location of the mobile station $\mathbf{M_d}$ at a location ($\mathbf{L_D}$) by recognizing a pattern of characteristics of a fourth input obtained from the wireless signal measurements obtained from transmissions between the mobile station $\mathbf{M_d}$ and the communication stations, wherein said pattern of characteristics includes signal characteristic data indicative of wireless signal transmissions between the mobile station $\mathbf{M_d}$ and one or more of the communication stations; and

(e) a fifth location technique for determining a location estimate of each mobile station ($\mathbf{M_e}$) of more than one of the mobile stations, wherein said fifth location technique uses a fifth input obtained from time delay measurements from signals received at the mobile station

$\mathbf{M_e}$ from one or more non-terrestrial communication stations above and not supported on the earth's surface;

determining whether said first location estimator has its corresponding input available for determining a first location estimate of the mobile station **M**;

determining a second location estimate of said mobile station **M** by activating said second location estimator with its corresponding input when the corresponding input for said second location estimator is available, and said corresponding input to said first location estimator is unavailable;

wherein for locating the mobile station **M**, at least one of said first and second location estimators uses said fifth technique for determining a geographical location indication for **M**~~, wherein a delay time of a signal from at least one of the non-terrestrial wireless communication stations to M is used for determining a spatial range between~~ **M** ~~and the at least one non-terrestrial communication station~~;

transmitting ~~obtaining~~ resulting location information ~~for transmitting~~ on a communications network, wherein said resulting location information is obtained using at least one of said first location estimate and said second location estimate;

wherein when said mobile station **M** is at a location ($\mathbf{L_1}$), an instance of at least said first location estimate is used ~~in said obtaining step~~ for obtaining a first corresponding instance of said resulting location information, and when said mobile station **M** is at a location ($\mathbf{L_2}$), an instance of at least said second location estimate is used ~~in said obtaining step~~ for obtaining a second corresponding instance of said resulting location information; and

wherein prior to the step of transmitting the resulting location information for the location $\mathbf{L_1}$, ~~a performance of said obtaining step includes one of~~ one of the following steps is performed: (1) a step of improving upon said instance of at least said first location estimate, and (2) a step of providing information indicative of an accuracy of said first corresponding instance of said resulting location information.

143. (Previously Presented) The method as claimed in Claim 142, wherein

said first, second, third, and fourth inputs include data related to one or more of: a wireless signal time delay, and a wireless signal strength; and

said fifth input includes data related to GPS satellite signals.

Claims 144 through 158 were previously cancelled.

159. (Currently Amended) A method for locating at least one mobile station, **M**, of a plurality of mobile stations, using wireless signal data obtained from transmissions between said mobile station **M** and at least one of a plurality of communication stations, each of the communication stations capable of at least one of: wirelessly detecting said mobile station **M**, and wirelessly being detected by said mobile station **M**, wherein at least some of said communication stations are able to provide voice communication with some of the mobile stations, including the mobile station **M**, comprising:

receiving, for each mobile station ($\mathbf{M_i}$) of: the mobile station **M**, and one or more additional ones of the mobile stations, wireless signal data obtained from transmissions between: (i) said communication stations, and (ii) said mobile station $\mathbf{M_i}$ at an unknown location, wherein said wireless signal data includes at least two of (A1) through (A3) following:

(A1) data obtained using signal timing measurements of wireless signal transmissions between said mobile station $\mathbf{M_i}$ and a set $\mathbf{S_1}$ of one or more of said at least some communication stations at terrestrial locations, wherein for at least one of the communication stations, **CS**, of the set $\mathbf{S_1}$, there is a corresponding portion of the signal timing measurements that are obtained ~~during~~ as a result of a plurality of wireless signal transmissions between the mobile station $\mathbf{M_i}$ and **CS**, with at least one of the transmissions being from the mobile station $\mathbf{M_i}$ to **CS**;

(A2) data obtained using time delay measurements from wireless signal transmissions between one or more non-terrestrial communication stations above and not supported on the Earth's surface, and said mobile station $\mathbf{M_i}$;

(A3) signal characteristic data, **D**, of wireless signal transmissions between said mobile station $\mathbf{M_i}$ and a set $\mathbf{S_3}$ of one or more of said communication stations, wherein (i) there is a data store including corresponding signal characteristic data for each of a plurality of terrestrial locations in a wireless coverage area provided by $\mathbf{S_3}$, (ii) said signal characteristic data **D** includes information for determining one of a correspondence and a similarity with the corresponding signal characteristic data in the data store for one or more locations **L** of the plurality of locations, and (iii) for at least one of the locations **L**, said corresponding signal characteristic data for **L** is obtained from signal transmissions from a mobile station different from $\mathbf{M_i}$;

generating a location estimate for the unknown location of said mobile station **M**, said location estimate dependent upon a geographical extent output from a corresponding instance of each of at least the location technique (B2) following, and one other of the following location techniques (B1) and (B3):

(B1) a first technique that determines location information indicative of a range between at least one of the communication stations and a mobile station being located;

wherein for locating the mobile station **M**, said corresponding instance of said first technique uses the data obtained in (A1) for **M** being $\mathbf{M_i}$, and an instance of the set $\mathbf{S_1}$ including one of the terrestrial communication stations ($\mathbf{CS_M}$) ~~to determine~~ for determining a range between the mobile station **M** and the communication station $\mathbf{CS_M}$ using signal timing measurements obtained as a result of a plurality of wireless signal transmissions between the mobile station **M** and $\mathbf{CS_M}$;

(B2) a second technique that determines location information indicative of a range between a non-terrestrial communication station above and not supported on the Earth's surface, and a mobile station being located;

wherein for locating the mobile station **M**, said corresponding instance of said second technique uses: (i) the data obtained in (A2) for **M** being $\mathbf{M_i}$, and (ii) one of the one or more non-terrestrial communication stations (**S**) to determine a range between the mobile station **M** and the non-terrestrial communication station **S**; and

(B3) a third technique that determines location information indicative of a wireless signal similarity or correspondence for transmissions between the communication stations and a mobile station being located;

wherein for locating the mobile station **M**, said corresponding instance of said third technique uses: (i) the signal characteristics **D** from (A3) for **M** being $\mathbf{M_i}$, and (ii) the data store of (A3).

160. (Previously Presented) The method as claimed in Claim 159, wherein said step of generating includes performing a stochastic technique for generating said location estimate of said mobile station **M**, wherein said stochastic technique uses a statistical correlation for correlating (1) and (2) following:

(1) information obtained from at least one of signal strength and signal time delay measurements of wireless signals between the mobile station **M** and the communication stations, and

(2) data, **U**, wherein for each location (**LOC**) of a plurality of locations, said data **U** includes one or more wireless signal measurements related to a wireless communication between some mobile station different from the mobile station **M** when the different mobile station is substantially at **LOC**, and;

wherein said correlation is used for determining: (i) a likely geographical indication, **GR**, for a location for the mobile station **M**, and (ii) data indicative of a probability that the mobile station **M** is within the likely geographical indication **GR**.

161. (Previously Presented) The method as claimed in Claim 159, wherein said step of generating includes providing at least one instance of said signal characteristic data **D** of (A3) for **M** being $\mathbf{M_i}$, to a pattern recognizer included in said third technique instance, said pattern recognizer being trainable when repeatedly provided with previously obtained wireless signal data indicative of a plurality of known mobile station locations.

Claim 162 was previously cancelled.

Please cancel claims 163, and 164 .

165. (Currently Amended) The location system as claimed in Claim 484 [[163]], wherein ~~at least some~~ each of the following limitations holds:

~~(a) for a geographic extent (**GE**) included in one of said first data, second data, **E$_1$** and **E$_2$**, wherein **GE** has a corresponding value therewith indicative of a likelihood that the mobile station **M$_0$** resides in a geographical area represented by **GE**, and said combiner or said selector uses said corresponding value for obtaining said location estimate of the mobile station **M$_0$**;~~

~~(b) said gating module activates a wireless transceiver for communicating with the plurality of communication stations;~~

~~(c) said plurality of communication stations includes base stations for wireless two-way communication with said mobile stations;~~

(a[[d]]) said ~~non-terrestrial wireless signal~~ transmitting stations include GPS satellites;

~~(e) said first category of components includes a component (**C$_e$**) that compares a value of a wireless signal waveform obtained from at least one wireless signal measurement of the data store for signal characteristic data with a corresponding wireless signal waveform value of a wireless communication between **M$_a$** and at least one of the communication stations, wherein **C$_e$** is used in determining **E$_1$**;~~

~~(f) said trainable mobile station location estimating components includes a component (**C$_i$**) for one of interpolating and extrapolating from the locations **L** of (b)(i) to obtain a geographic extent of one of the mobile stations, wherein **C$_i$** is used in determining **E$_1$**;~~

(b[[g]]) said ~~communications~~ network provides for a transmission with the at least one of said two or more location estimating sources via the Internet; and

~~(h) the mobile station **M$_0$** has an ability to communicate with other of the mobile stations as a base station;~~

~~(i) said means for determining is at least partially included in a mobile base station;~~

~~(j) said means for determining resides at a predetermined node of a network for communication with base stations of a wireless carrier;~~

(c[[k]]) said selection process ~~gating module resides at a predetermined~~ is activated by the network node ~~of a network for communication with base stations of a wireless carrier~~;

~~(l) said gating module routes activation information to said estimating sources for obtaining **E$_1$** and **E$_2$**; and~~

~~(m) said selection component gating module resides at a mobile station~~.

Please cancel Claims 166, 167, and 168.

Please cancel Claim 169.

Please cancel Claim 170.

Claim 171 was previously cancelled.

172. (Currently Amended) The mobile station location system of Claim 502 [[169]], further including at least one data ~~base~~ storage having ~~performance~~ information indicative of past locations of some of the mobile stations provided by ~~a performance of~~ at least one of said ~~first and second~~ estimating sources in providing previous location estimates of at least some of the mobile stations of Σ, wherein said ~~performance~~ information indicative of past locations is used for determining information indicative of a location of at least one mobile station being an instance ~~a measurement of a likelihood~~ of the mobile station M_0 ~~being in a geographical location represented by a location estimate output by the at least one of said first and second estimating sources~~;

wherein the information indicative of a location is provided to the location obtaining component.

Claims 173 through 178 were previously cancelled.

179. (Currently Amended) A method for locating a wireless mobile station, comprising:

~~repeatedly~~ performing the following steps (A1) through (A3) for locating the mobile station;

(A1) obtaining location related information for locating the mobile station, said location related information obtained from using at least one of (a) and (b) following:

(a) wireless timing signals received by the mobile station from one or more satellites, wherein said timing signals from each of the one or more satellites identify a location of the mobile station; and

(b) time delays of wireless signals transmitted between the mobile station and one or more transceivers of a plurality of terrestrial transceivers cooperatively linked together for use in locating the mobile station, wherein said time delays identify a locus of locations of the mobile station from at least one of the transceivers, and wherein for one of the one or more transceivers, a corresponding one of the time delays is obtained from signals transmitted during a plurality of wireless signal transmissions between the mobile station and the at least one transceiver, with at least one of the transmissions being from the mobile station to the at least one transceiver;

wherein an instance of the location related information obtained from each of (a) and (b) is used at some time for determining a respective location of the mobile station;

(A2) determining data for a graphical presentation of a likely location of the mobile station from at least one of the instances of the location related information by determining a likely roadway upon which the mobile station is located; and

(A3) providing said data for a graphical presentation for displaying on a display device;

wherein for at least one performance (P) of the repeated performances of the steps (A1) through (A3), the location related information from the wireless timing signals of (a) for P is preferred for determining the corresponding graphical presentation for P over location related information from time delays of timing signals of (b), unless there is a reduced or no effectiveness for locating the mobile station by wireless timing signals according to (a) for P.

180. (Previously Presented) The method of Claim 85, wherein for at least said mobile station **M**, said first and second estimators determine said first and second geographical indications independently of one another.

Claim 181 was previously cancelled.

182. (Previously Presented) The method of Claim 85, wherein said at least one communication station transmits a first wireless signal to the mobile station **M** and receives in response to said first wireless signal, a responsive signal from the mobile station **M**, and any intermediary devices for transmitting signals between said mobile station **M** and the communication stations are terrestrial.

Please cancel Claims 183 and 184.

185. (Previously Presented) The method of Claim 85, further including providing a wireless transmission to a second mobile station, wherein said second mobile station is capable of moving toward the mobile station **M** by using said wireless transmission for locating **M**.

186. (Currently Amended) The method of Claim 85, wherein at least one of the first and second location estimators performs a technique for determining, for at least one of the communication stations, **CS**, at least one of (i) and (ii) following:

(i) a distance between the communication station **CS** and the mobile station **M**, said distance dependent upon signal time delay derived information, wherein for determining the distance, two way communication between the mobile station **M** and the communication station **CS** is used, and

(ii) an angular orientation about the communication station **CS** of a direction of the mobile station **M** determined using a measurement of a wireless signal direction of arrival of wireless signals transmitted between the mobile station **M** and the communication station **CS**,

wherein said at least one communication station **CS** is stationary

~~said first technique determines both (a) and (b) following: (a) said distance between a first instance of the at least one communication station **CS** and the mobile station **M**, and (b) a wireless signal direction-of-arrival between the mobile station **M** and a second instance of the at least one communication station **CS**~~.

187. (Previously Presented) The method of Claim 97, wherein said one or more location evaluators provide the first collection of location estimates using all three of the techniques (i), (ii) and (iii).

188. (Currently Amended) The method of Claim 97, ~~wherein said mobile station M includes a mobile telephone that communicates with at least some of said communication stations~~ wherein the first collection includes geographic location information determined using an activation of an instance of said second technique ~~using a wireless protocol provided by a commercial radio service provider~~.

Claim 189 was previously cancelled.

Please cancel Claim 190.

191. (Currently Amended) The method of Claim 99, wherein said ~~third~~ instance of the second technique uses a time difference of arrival of wireless signals transmitted between the second mobile station [[M3]] and one of the communication stations **CS** for determining a locus of points having a hyperbolic shape.

192. (Currently Amended) The method of Claim 99, wherein for said instance of the second technique, one of the communication stations **CS** transmits a first wireless signal to the second mobile station [[M3]] and receives in response to said first wireless signal, a responsive signal from the second mobile station [[M3]], and any intermediary devices for transmitting signals between the second mobile station [[M3]] and the communication stations are terrestrial.

193. (Previously Presented) The method of Claim 99, wherein said step of first transmitting includes responding to an Internet request to locate the first mobile station.

Please cancel Claim 194.

195. (Currently Amended) The method of Claim 97, wherein the first collection includes geographic location information determined using an activation of an instance of said third technique, wherein the activation includes performing one of: a least squares process, partial least squares process, and a principle decomposition process.

Claims 196 through 198 were previously cancelled.

Please cancel Claims 199 and 200.

Claim 201 was previously cancelled.

202. (Previously Presented) The method of Claim 106, wherein at least one of said adaptable location estimators adapts by one of:

learning an association for associating, for each of at least some of said data collections, said geographical location representation (a1) of the data collection with said set of said wireless signal measurements (a2) of the data collection; and

determining a statistical similarity between (1) and (2) following: (1) wireless signal measurements obtained from transmissions between said mobile station **M** and the network, and (2) said wireless signal measurements (a2) of the data collections in said archive.

Claims 203 through 246 were previously cancelled.

Please cancel Claims 247 and 248.

249. (Currently Amended) The method of Claim 137, further including the steps of:

performing the first obtaining step at a first time, and performing the second obtaining step at second time, wherein the first and second location related information are for different locations of the mobile station **M** ~~providing communication between the mobile station **M** and another party via at least one of the communication stations, wherein the communication travels through a publicly accessible communications network; and~~

~~requesting one or more of the first and second location related information in response to signals received from a commercial mobile radio service provider wirelessly communicating with the mobile station **M**~~.

Claim 250 was previously cancelled.

251. (Currently Amended) The method of Claim 85, further including at least one of the following steps:

(i) activating at least one common predetermined mobile station location related component for determining said resulting location estimate for the mobile station **M** and for determining a second resulting location of a second mobile station, wherein the location related component is not activated when determining said resulting location estimate for **M** until after at least one of said step~~s of first and second~~ of receiving is performed;

(ii) providing information for activating the first and second location estimators, wherein said information for activating is output by a common activation requesting component; and

(iii) accessing an attribute related to one or more of: an error in a geographical extent within which the mobile station **M** is expected to be, an accuracy in a geographical extent within which the mobile station **M** is expected to be, and a likelihood of the mobile station **M** being located in said resulting location estimate.

Please cancel Claim 252.

253. (Currently Amended) The method of Claim 97, further including, following said step of obtaining, a step of selecting at least one of the one or more geographic estimations ~~location estimates~~ that is likely to be indicative of one of ~~approximate to~~ the unknown locations.

Claims 254 through 257 were previously cancelled.

258. (Previously Presented) The location system of Claim 106, wherein said interface includes a network interface for receiving a request for locating, at one or more locations, the mobile station **M** via the Internet; and further including an output gateway for transmitting, via the Internet to a particular Internet destination, a resulting location estimate for the mobile station **M**, wherein said resulting location estimate is dependent upon one or more location estimates determined by a selected one of said plurality of location estimators, and wherein said resulting location estimate is determined according to an output criteria for the one destination, said output criteria including one or more of: a representation of an accuracy of said resulting location estimate, and a frequency of providing the one destination with one or more instances of said resulting location estimates.

Claims 259 through 262 were previously cancelled.

Please cancel Claim 263.

264. (Currently Amended) The method of Claim 119, further including a step of outputting said resulting location estimate to a predetermined destination via a communications network, an accuracy of the resulting location dependent upon predetermined location accuracy criteria.

Please cancel Claims 265 and 266.

267. (Currently Amended) The method of Claim 121, further including the steps of:

requesting one or more of the ~~first and second~~ resulting location estimates via signals transmitted by a commercial mobile radio service provider, wherein the commercial radio service provider wirelessly communicates with the mobile station; and

transmitting, via a communication network, at least one location of the mobile station to a predetermined destination ~~one of: the mobile station, another mobile station, a police unit, a vehicle, and a party requesting the location of the mobile station~~.

268. (Currently Amended) The method of Claim 126, ~~further including communicating via a network with a predetermined node of the network corresponding to the source~~, wherein ~~the~~

~~communication includes said resulting location information, and~~ the resulting location is dependent upon at least the first location information.

Please cancel Claims 269, 270, 271 and 272.

273. (Currently Amended) The method of Claim 99, wherein: for ~~data (D_1) related to a geographical location of said first mobile station, and for data (D_2) related to a geographical location of said second mobile station, D_1 and D_2 each~~ at least one of first and second geographical indications, the corresponding first or second output location data includes information indicative of at least one of: ~~a location accuracy,~~ a location likelihood of the at least one geographical indication, an environmental condition of a location, ~~a timestamp of a location~~, and a description of a location processing performed~~; a description of how or why a location related output was obtained; and~~

~~at least one of said steps (A) and (B) below are performed:~~

~~(A) receiving from a common predetermined interface both D_1 and D_2; and~~

~~(B) receiving in a common predetermined data representation format both D_1 and D_2.~~

Please cancel Claim 274.

Please cancel Claims 275 and 276.

277. (Currently Amended) The method of Claim 99, ~~wherein said~~ further including steps of first and second determining, using ~~use~~ at least one common predetermined mobile station location related component for determining, respectively, said first output location data and said second output location data, wherein said common predetermined component accesses the first and second output criteria for determining, respectively, said first and second output location data.

278. (Previously Presented) The method of Claim 99, wherein said steps of first and second transmitting includes outputting said first and second output location data via a common predetermined network interface.

279. (Currently Amended) The method of Claim 99, ~~wherein said first~~ further including a step of ~~determining step includes~~ accessing mobile station location output frequency information of said first output criteria.

Please cancel Claim 280.

281. (Currently Amended) The method of Claim 99, wherein at least one of (a) and (b) following hold: (a) ~~at least one of said first determining and~~ said first transmitting step[[s]] includes determining a particular protocol for outputting said first output location data on the corresponding communication network for transmission to the corresponding destination for the first request, and (b) ~~at least one of said second determining and~~ said second transmitting step[[s]] includes determining a particular protocol for outputting said second output location data on the corresponding communication network for transmission to the corresponding destination for the second request.

282. (Currently Amended) The method of Claim 99, wherein at least one of (1) and (2) following hold: (1) ~~for said step of first determining,~~ said first output criteria includes information for determining said representation of said first geographical indication using a location of a known first geographical feature different from the communication stations, and (2) ~~for said step of second determining,~~ said second output criteria includes information for determining said representation of said second geographical indication using a location of a known second geographical feature different from the communication stations.

Please cancel Claims 283 and 284.

Please cancel Claim 285.

286. (Currently Amended) The method of Claim 99 [[284]], wherein said first output criteria includes information for determining a first location granularity at which a location estimate of the first mobile station is transmitted, ~~wherein said first location granularity is dependent upon said first use,~~ and said second output criteria includes information for determining a second location granularity at which a location estimate of the second mobile station is transmitted, wherein said first and second granularity is different ~~second location granularity is dependent upon said second use~~.

Please cancel Claim 287.

Claims 288 and 289. were previously cancelled.

290. (Previously Presented) The method of Claim 99, wherein at least one of said steps of receiving, first obtaining, second obtaining, first transmitting, and second transmitting receives or transmits wireless location related information on a TCP/IP network.

291. (Previously Presented) The method of Claim 99, wherein said step of first obtaining includes receiving a first location estimate from a first of said location determining sources which performs an instance, $\mathbf{I}_1$, of said first technique for estimating a location of the first mobile station, wherein said

instance $\mathbf{I_1}$ uses wireless signals, **S**, between the first mobile station and at least one of the communication stations to improve at least one performance characteristic of said instance $\mathbf{I_1}$ over a performance of $\mathbf{I_1}$ without use of the wireless signals between the first mobile station and the at least one communication station.

292. (Previously Presented) The method of Claim 291, wherein the instance $\mathbf{I_1}$ uses first information for locating the first mobile station, wherein the first information is dependent upon signal timing measurements from the wireless signals **S**.

293. (Previously Presented) The method of Claim 291, wherein the instance $\mathbf{I_1}$ uses first information from the wireless signals **S**, wherein the first information is dependent upon a wireless coverage area of the at least one communication station.

294. (Previously Presented) The method of Claim 99, further including a step of providing display information for displaying a representation of a location estimate **L** of the first mobile station, wherein said display information is for displaying a map of an area having the location estimate **L**, and for concurrently displaying information indicating an accuracy of the location estimate **L**.

295. (Previously Presented) The method of Claim 294, wherein said display information is displayed at a mobile station **M** that has requested a location of the first mobile station.

296. (Previously Presented) The method of Claim 118, wherein said outputting step includes providing accuracy information indicating an accuracy of said resulting location information, wherein said accuracy information is displayed with said at least one location of the mobile station.

297. (Previously Presented) The method of Claim 118, wherein for at least one location of the mobile station said step of determining uses both said first and second values.

Please cancel Claim 298.

299. (Currently Amended) The method of Claim 118 [[298]], wherein said first obtaining ~~location technique~~ includes ~~a step of~~ using information dependent upon a wireless coverage area of the at least one transceiver for improving said first instance ~~location information~~.

300. (Previously Presented) The method of Claim 299, wherein the at least one transceiver is co-located with a base station for providing two way communication with the mobile station.

Claims 301 through 311 were previously cancelled.

312. (Currently Amended) The method of Claim 119, wherein:

(a) said first location estimator performs said signal processing technique for obtaining said first information for $\mathbf{M_1}$ ~~wherein $\mathbf{I_S}$ is $\mathbf{M_1}$~~; and

(b) said first information is selected over said second information received from said second mobile station location estimator unless there is information indicating a likelihood of said first information providing reduced performance in locating said mobile station $\mathbf{M_1}$.

313. (Currently Amended) The method of Claim 119, wherein: at least one of said first and second location estimators ~~performs said signal processing technique when determining said first information, and also~~ performs ~~said~~ a locus computing technique ~~for obtaining said first information~~, wherein the locus computing technique utilizes measurements (**S**) of wireless signals for determining at least one locus of locations for the mobile station $\mathbf{M_1}$,

wherein at least one of said measurements **S** is obtained using a signal time delay between the mobile station $\mathbf{M_1}$, and at least one of the two or more communication stations; wherein there is two way wireless communication between mobile station $\mathbf{M_1}$ and at least one of the communication stations.

314. (Previously Presented) The method of Claim 119, further including a step of providing display information for: (a) displaying a representation of said resulting location estimate, wherein said display information is for displaying with a map of an area having the resulting location estimate, and (b) concurrently displaying information indicative of an accuracy of the resulting location estimate.

315. (Currently Amended) The method of Claim 121, wherein said determining step includes determining at least one of said ~~first and second~~ resulting location estimates as a function of a position of a known stationary geographical feature that is sufficiently close to a geographic location [[of a]] ~~corresponding~~ represented by one of the instances $\mathbf{I_1}$ or $\mathbf{I_2}$ so that the location of the geographical feature is used ~~to determine~~ in providing said at least one resulting location estimate.

316. (Currently Amended) The method of Claim 121, wherein TS is included in one of: a mobile base station, and a fixed location base station.

317. (Currently Amended) The method of Claim 126, wherein for each of the location techniques, activation information is provided to the location technique ~~the first and second location techniques~~ via a predetermined common data distribution component~~, wherein said component distributes mobile station location data specific to each of the first and second location techniques according to a content of said data expected by the location technique~~.

318. (Currently Amended) The method of Claim 126, further including a step of determining said resulting location information according to output criteria corresponding to the source, the output criteria indicative of one of: a correctness of the resulting location information, or a frequency by which additional instances of the resulting location information is determined.

319. (Currently Amended) The method of Claim 126, wherein the outputting step includes a step of providing said resulting location information ~~data~~ for one of: performing a routing function for routing the mobile station, responding to a user of said mobile station request for location, locating a child, locating a stolen vehicle, and keeping entities apart.

320. (Currently Amended) The method of Claim 126, wherein said resulting location information includes one or more of:

(a) a value indicative of a likelihood of the mobile station being at a location estimate represented by the resulting location information;

(b) data identifying one or more known geographical extents, wherein each of the geographical extents is determined using an associated location estimate (**L**) of the mobile station determined using at least one of the first and second location information, wherein ~~the~~ one ~~or more~~ of the geographical extents provides additional location information not provided by their associated location estimate **L**; and

(c) at least one of: a speed of the mobile station, a direction of the mobile station, a change in speed of the mobile station, and a change in direction of the mobile station.

321. (Currently Amended) The method of Claim 126, wherein said first location information is determined using ~~technique uses~~ wireless signals, **S**, between the mobile station and a terrestrial wireless transceiver to improve at least one performance characteristic of said ~~first~~ corresponding location technique (**T**) for receiving the instance of the first collection over a performance of said ~~first~~ location technique **T** without use of the wireless signals **S**.

322. (Previously Presented) The method of Claim 126, further including providing mapping data of an area having a location estimate (**L**) of said mobile station wherein **L** is included in said resulting location information, and providing for concurrent display, with said mapping data, information indicating an accuracy of the location estimate **L**.

323. (Currently Amended) The method of Claim [[131]] 454, wherein the step of determining includes using output criteria corresponding to an application identified for receiving the resulting location information, wherein an accuracy of the resulting location information is dependent upon the output criteria.

324. (Currently Amended) The method of Claim 323, wherein said output criteria includes at least some of:

~~(a) an identification of a transmission protocol;~~

(a[[b]]) a granularity in which a location estimate of the mobile station represented by said resulting location information is to be provided;

(b[[c]]) a frequency with which repeated location estimates of the mobile station are to be output to the application; and

~~(d) destination data for determining where said resulting location information is to be transmitted;~~

(c[[e]]) an indication as to whether a location estimate of the mobile station is to be adjusted according to a known geographical feature different from the communication stations~~; and~~

~~(f) a desired representation of a location estimate of the mobile station represented by said resulting location information~~.

325. (Currently Amended) The method of Claim [[134]] 468, wherein said ~~first~~ obtaining step includes receiving said corresponding instance of the first location information ~~first mobile station related location information~~ determined, at least partially, by said first technique.

326. (Currently Amended) The method of Claim [[325]] 468, wherein said first location technique determines location information for a first of the mobile stations, using timing values from an instance $\mathbf{I}_S$ of said corresponding input obtained from satellite signals received at the first mobile station from a plurality of satellites, and wherein said instance $\mathbf{I}_S$ also includes additional data for improving on location information for the first mobile station obtained from said satellite signals, wherein said additional data is received by the first mobile station in a wireless communication between: said first mobile station, and a communication station of a collection of one or more of the plurality of terrestrial communication stations ~~additional data includes one of:~~

~~(a) data from a transmission from a base station, wherein the base station is included in said collection of one or more of the plurality of terrestrial communication stations, and the base station is detected by the first mobile station, said base station having a substantially reduced wireless coverage area in comparison to at least one of the terrestrial communication stations;~~

~~(b) a location estimate for the first mobile station determined by a site remote from the first mobile station and transmitted to the first mobile station via a base station of the commercial mobile radio service provider, wherein the site is used for determining location information for a plurality of the mobile stations; and~~

~~(c) data indicative of wireless timing measurements for wireless signals received at the first mobile station from one of the communication stations of said collection of one or more of the plurality of terrestrial communication stations~~.

Please cancel Claim 327.

Please cancel Claim 328.

329. (Currently Amended) The method of Claim 137, wherein for [[the]] a substantially same location, at least a portion of the first location related information ~~said first value~~ is preferred over at least a portion of the second location related information ~~has an associated first preference and said second value has an associated second preference, and said first and second preferences are used~~ in determining said resulting location estimate.

330. (Previously Presented) The method of Claim 140, wherein a performance of said obtaining step, using said first location estimate, includes said step of improving upon said instance of at least said first location estimate so that said resulting location information is expected to be more accurate than said first location estimate.

331. (Previously Presented) The method of Claim 140, wherein a performance of said obtaining step includes said step of providing information indicative of an accuracy of said first corresponding instance.

332. (Currently Amended) The method of Claim 142, wherein ~~a performance of said obtaining step includes performing~~ said step of improving upon said instance of at least said first location estimate is performed so that said first corresponding instance of said resulting location information is ~~expected to be~~ more accurate than said first location instance.

333. (Currently Amended) The method of Claim 142, wherein ~~a performance of said obtaining step includes performing~~ said step of providing information indicative of an accuracy of said first corresponding instance of said resulting location information is performed.

334. (Previously Presented) The method of Claim 142, wherein said first location estimator is dependent upon a result from at least two of said location technique categories, wherein one of said at least two location categories is one of said location technique categories (a) and (e).

335. (Currently Amended) The system of Claim 502 [[169]], wherein said mobile station location system includes ~~both of: said selector and said~~ a combiner for combining at least a portion of the first location information, and at least a portion of the second location information for obtaining the location estimate.

Please cancel Claims 336 and 337.

338. (Currently Amended) The system of Claim 502 [[169]], further including an output gateway for transmitting location information, ~~indicative of~~ including said location estimate, to [[a]] the predetermined network destination, ~~on one or more communication networks,~~ wherein said location information is determined using a description indicative of an expected input by the destination, the description being one of a plurality of stored descriptions indicative of expected inputs by a plurality of different destinations.

Please cancel Claims 339, 340, 341 and 342.

343. (Currently Amended) The ~~method~~ system of Claim 338 [[342]], wherein for transmitting the location information, the output gateway uses ~~said~~ output criteria ~~includes~~ including at least some of:

(a) an identification of a transmission protocol;

(b) a granularity for representing a location estimate (**LE**) of the mobile station **M**, wherein **LE** is represented by said output location information; and

(c) a frequency with which repeated location estimates of the mobile station **M** are to be output to a destination corresponding to the request[[;]]

~~(d) destination data for determining where said output location information is to be transmitted; and~~

~~(e) an indication as to whether a location estimate of the mobile station **M** is to be adjusted according to a known geographical feature different from the communication stations~~.

344. (Previously Presented) The method of Claim 159, further including a second step of generating a second location estimate for an unknown location of one of the additional mobile stations, wherein said second location estimate is dependent upon a different collection of one or more instances, of said first, second and third techniques than used to generate the location estimate for the mobile station **M**.

Please cancel Claim 345.

346. (Previously Presented) The method of Claim 159, further including a step of outputting output location information for display, wherein a location accuracy of said location estimate is included in said output location information, said location accuracy identified with one or more geographical areas on a map displayed at a destination for the output location information.

347. (Previously Presented) The method of Claim 159, wherein said step of generating includes giving preference to the geographical extent from said instance of one of said first, second and third techniques over the geographical extent from said instance of a different one of said first, second and third techniques.

348. (Previously Presented) The method of Claim 159, wherein said step of generating includes preferring a common area of said geographical extents upon which the location estimate is dependent.

Please cancel Claim 349.

350. (Currently Amended) A method for locating mobile stations, comprising:

providing access to each of a plurality of mobile station location determining resources for determining corresponding instances of location information for locating mobile stations using corresponding data obtained from measurements of wireless signals transmitted between:

(i) the mobile stations, and

(ii) one or more of: (1) one or more of a plurality of communication stations capable of at least wirelessly detecting the mobile stations, and (2) one or more non-terrestrial wireless signal transmitting stations above and not supported on the Earth's surface;

for each mobile station **M** of some of said mobile stations, perform steps (A) through (F) following:

(A) first providing data to a first of said resources for obtaining a first instance of said corresponding location information for the mobile station **M** at a location $\mathbf{L_1}$, wherein in determining said first instance, said first resource uses a result from a first location technique included in at least one of the location determining categories (b1) through (b5) following said step of second providing below;

(B) second providing data to a second of said resources for obtaining a second instance of said corresponding location information for the mobile station **M** at a location $\mathbf{L_2}$, wherein said second resource uses a result from a second location technique included in at least one of the location determining categories (b1) through (b5); ~~, and~~

wherein for locating an instance ($\mathbf{I_j}$) of at least some location ~~instance~~ of the mobile station **M** by the first resource, the first location technique is activated, and a location estimate from the second location technique is not used, and for locating an instance ($\mathbf{I_k}$) of at least some location ~~instance~~ of the mobile station **M** by the second resource, the second location technique is activated, and a location estimate from the first location technique is not used;

the location determining categories being (b1) through (b5) following:

(b1) a first category of one or more location determining techniques, wherein each said technique ($\mathbf{T_1}$) of said first category determines a geographical extent $\mathbf{G_a}$ for a location of a mobile station ($\mathbf{M_a}$) by identifying a pattern of signal characteristics for wireless signals communicated between $\mathbf{M_a}$ and the communication stations as likely to have been a result of $\mathbf{M_a}$ being in $\mathbf{G_a}$, wherein said $\mathbf{T_1}$ performs the identification by determining a similarity between (b1-1) and (b1-2) following:

(b1-1) one or more of said signal characteristics of communication with $\mathbf{M_a}$, and

(b1-2) data obtained from a survey of wireless signal characteristics in an area including said geographical extent $\mathbf{G_a}$;

(b2) a second category of one or more location determining techniques, wherein each said technique of said second category determines a geographical extent $\mathbf{G_b}$ for a location of a mobile station ($\mathbf{M_b}$) as a result of (I) and (II) following:

(I) generating an association for associating: (i) each location **L** of a plurality of geographical locations with (ii) data indicative of corresponding measurements of wireless signals transmitted between some one of said mobile stations, different from $\mathbf{M_b}$, and the communication stations, wherein said some mobile station is approximately at the location **L**, and

(II) using said association together with characteristics of signals communicated between $\mathbf{M_b}$ and the communication stations for determining the geographical extent $\mathbf{G_b}$ for the location of $\mathbf{M_b}$;

(b3) a third category of one or more offset determining techniques, wherein each said offset determining technique determines a geographical extent $\mathbf{G_c}$ for a location of a mobile station ($\mathbf{M_c}$);

wherein said offset determining technique utilizes one or more timing measurements of wireless signals between the mobile station $\mathbf{M_c}$ and a plurality of the communication stations for determining the geographical extent $\mathbf{G_c}$;

wherein said timing measurements are a function of a signal time delay between the mobile station $\mathbf{M_c}$ and at least one communication station **CS** of the plurality of communication stations, and said timing measurements are for determining $\mathbf{G_c}$ as a function of at least: a location of **CS**, and a predetermined formula representative of a geometric curve for determining a horizontal position of $\mathbf{M_c}$;

wherein there is a corresponding portion of the signal timing measurements that are obtained during a plurality of wireless signal transmissions between the mobile station $\mathbf{M_c}$ and **CS**, with at least one of the transmissions being from the mobile station $\mathbf{M_c}$ to **CS**;

wherein said communication station **CS** is supported on the Earth; and

wherein each of said offset determining techniques determines a geographical extent for a location of each of a plurality of different mobile stations;

(b4) a fourth category of one or more direction of arrival location determining techniques wherein each said direction of arrival technique determines a geographical extent for a location of a mobile station ($\mathbf{M_d}$) by determining an angular orientation about a communication station $\mathbf{CS_d}$ of a direction of the mobile station $\mathbf{M_d}$ using a measurement of

a wireless signal angle of arrival of wireless signals transmitted between the mobile station $\mathbf{M_d}$ and the communication station $\mathbf{CS_d}$;

(b5) a fifth category of one or more wireless location techniques wherein each said technique ($\mathbf{T_5}$) of said fifth category determines a geographical extent for a location of a mobile station ($\mathbf{M_e}$) using wireless signals received at the mobile station $\mathbf{M_e}$ from the non-terrestrial transmitting stations, wherein said wireless signals provide time values, and said technique $\mathbf{T_5}$ determines at least one elapsed time for signal transmissions to $\mathbf{M_e}$ for the wireless signals transmitted by one or more of the non-terrestrial transmitting stations;

(C) first obtaining first structured location data using said first instance;

(D) second obtaining second structured location data using said second instance, wherein said second location technique is included in at least said fifth category;

wherein each of said first and second structured location data includes a common data representation for a plurality of location attributes, said representation including (d1) through (d2) following:

(d1) a collection of one or more attributes, $\mathbf{A_1}$, for representing a geographical extent within which a mobile station being located is expected to be;

(d2) a collection of one or more attributes related to at least one of: an error in data for $\mathbf{A_1}$, and a likelihood of the mobile station being located being in the geographical extent represented by data for $\mathbf{A_1}$; and

(E) outputting, to a predetermined destination on a communications network, ~~generating~~ resulting location information of a location $\mathbf{L_M}$ of the mobile station **M**, said resulting location information being dependent upon data for said attributes (d1) and (d2) obtained from at least one of said first and second structured location data~~; and~~

~~(F) outputting said subsequent location information to a predetermined destination on a communications network~~.

351. (Previously Presented) The method of Claim 350, wherein said plurality of location attributes further includes an attribute for a timestamp.

352. (Previously Presented) The method of Claim 350, wherein said plurality of location attributes further includes an attribute for descriptor information indicative of a reason that another one of said plurality of location attributes has its corresponding value.

353. (Previously Presented) The method of Claim 350, wherein said plurality of location attributes includes the attribute related to an error in data for $\mathbf{A_1}$.

354. (Previously Presented) The method of Claim 350, wherein said plurality of location attributes includes the attribute related to a likelihood of the mobile station being located being in the geographical extent represented by $\mathbf{A_1}$.

355. (Previously Presented) The method of Claim 350, wherein said step of providing and at least one of said steps (A) through (F) are performed at one of: a mobile base station, and a stationary site.

356. (Previously Presented) The method of Claim 350, wherein said first location technique is performed at a site remote from the mobile station **M**.

357. (Previously Presented) The method of Claim 350, further including performing said outputting step according to a frequency of output desired by the destination.

Please cancel Claim 358.

359. (Previously Presented) The method of Claim 350, further including a step of receiving a request for locating the mobile station **M**, wherein said request is related to a location of a vehicle via the Internet.

360. (Previously Presented) The method of Claim 350, wherein said step of first providing includes a step of requesting activation of said first resource via a communication on the Internet.

361. (Currently Amended) The method of Claim 85, wherein at least one of said first and second location related information is determined using a location technique for determining a geographical indication (**L**) for a location of the mobile station **M**, wherein the location technique determines the location **L** by receiving data obtained from geographical location information indicative of the location of the mobile station **M**, wherein the geographical location information includes to one or more geographic dependent wireless characteristics of a wireless communication mobile station **M**, and the communication stations;

wherein the location technique performs an interpolation dependent on a plurality of data pairings, wherein each data pairing includes: (i) an identification of a transmitter location from which there is a wireless communication with the communication stations, and (ii) wireless related information indicative of the transmitter location, wherein the wireless related information includes to one or more geographic dependent wireless signal characteristics of the wireless communication ~~the signal location technique (d), and the signal location technique further includes a step of selecting one or more of the geographical location representations of (d2)(i) that are likely to be approximate to the unknown location of the mobile station **M**~~.

Claim 362 was previously cancelled.

Please cancel Claim 363.

Claim 364 was previously cancelled.

Please cancel Claims 365, 366, 367 and 368.

369. (Currently Amended) The ~~apparatus~~ system of Claim 502 [[169]] wherein for said instance $\mathbf{I_1}$ being available, $\mathbf{I_1}$ ~~first data~~ includes one or more first data values that provide information descriptive of location processing for locating $\mathbf{M_0}$, and for said instance $\mathbf{I_2}$ being available, I_2 ~~second data~~ includes one or more second data values that provide information descriptive of location processing for locating $\mathbf{M_0}$;

wherein the at least some of said first data values and the at least some of said second data values have a common predetermined semantics for their interpretation.

370. (Previously Presented) The location system of Claim 106, wherein said mobile station **M** is different from at least one of the one or more mobile stations used for obtaining said wireless signal data of (a2).

Claims 371 and 372 were previously cancelled.

373. (Currently Amended) The method of Claim 121, including a further step of receiving the instances $\mathbf{I_1}$ and $\mathbf{I_2}$ [[at]] in a common predetermined data structural format ~~interface~~.

374. (Currently Amended) The method of Claim 121, further including at least some of the following steps:

(i) activating at least one common predetermined mobile station location related component for determining each of said ~~first and second~~ resulting location estimates, wherein the location related component is not activated for locating the mobile station until after at least one of said instances $\mathbf{I_1}$ and $\mathbf{I_2}$ is obtained;

(ii) providing information for activating the first and second location techniques, wherein said information for activating is output by a predetermined common activation component that routes said information for activating to the first and second location techniques; ~~and~~

(iii) said step of determining includes, for the instances $\mathbf{I_1}$ and $\mathbf{I_2}$, accessing ~~at least a~~ respective portions provided in [[of a]] predetermined common data structural format ~~structure~~ that specifies a data format for ~~at least most~~ location related attributes of said instances $\mathbf{I_1}$ and $\mathbf{I_2}$,

wherein at least some of the location related attributes do not identify a geographical location of the mobile station; and

(iv) said step of determining includes, for at least one of said ~~first and second~~ resulting location estimates, obtaining an attribute indicative of one or more of: an error in a geographical extent for locating the mobile station, an accuracy in a geographical extent for locating the mobile station, and a likelihood of the mobile station being located in the at least one resulting estimate.

375. (Previously Presented) The method of Claim 121, wherein said step of receiving includes receiving descriptor information providing information related to the processing performed for determining one or more of said instances $\mathbf{I_1}$ and $\mathbf{I_2}$.

Claim 376 was previously cancelled.

Please cancel Claims 377, 378, 379 and 380.

381. (Previously Presented) The method of Claim 350, wherein said location $\mathbf{L_1}$ and said location $\mathbf{L_2}$ are substantially identical.

382. (Previously Presented) The method of Claim 350, wherein said location $\mathbf{L_1}$ and said location $\mathbf{L_2}$ are effectively different locations of the mobile station **M**.

Claim 383 was previously cancelled.

384. (Previously Presented) The method of Claim 350, wherein said location $\mathbf{L_M}$ is effectively one of said location $\mathbf{L_1}$, and said location $\mathbf{L_2}$.

385. (Previously Presented) The method of Claim 384, wherein said location $\mathbf{L_M}$ is effectively identical to each of said location $\mathbf{L_1}$ and said location $\mathbf{L_2}$.

386. (Previously Presented) The method of Claim 350, wherein said location $\mathbf{L_M}$ is a location of the mobile station **M** for a time subsequent to a time for the mobile station **M** being at one or more of said location $\mathbf{L_1}$ and said location $\mathbf{L_2}$.

Please cancel Claim 387.

Claims 388 through 396 have been previously cancelled.

397. (Previously Presented) The method of Claim 128, wherein said step of outputting includes preferring one of said first and second location information over the other.

398. (Previously Presented) The method of Claim 128, wherein said step of outputting includes combining said first and second location information when both are available for locating the mobile station at substantially a same time.

Please cancel Claim 399.

400. (Currently Amended) The method of Claim [[399]] 97, wherein ~~said resulting~~ a location estimate for **M** [[$\mathbf{M_i}$]] is obtained that is a result of ~~one of:~~ a combination of at least two location estimates of the first collection, the at least two location estimates obtained from different ones of the first, second and third techniques ~~data and the second data, a comparison of the first and second data, and a preference for one of the first and second data~~.

401. (Previously Presented) The method of Claim 159, wherein for locating said mobile station **M**, said step of generating is dependent upon an output from the corresponding instance of the first technique (B1), and the range between the mobile station **M** and the communication station $\mathbf{CS_M}$ is determined at a site different from the unknown location of the mobile station **M**.

Please cancel Claims 402, 403, 404, 405, 406, 407, and 408.

Please cancel Claim 409.

410. (Previously Presented) The method of Claim 374, further including at least said step (iii).

Please cancel Claim 411.

412. (Currently Amended) A method for locating a plurality of wireless mobile stations using wireless signals, wherein each of a plurality of terrestrial stations is available for at least wirelessly detecting wireless transmissions from the mobile stations;

wherein there are first and second mobile station location techniques, wherein each of said location techniques is capable of providing a location estimate for each mobile station of at least some of said mobile stations when the location technique is supplied with corresponding data obtained from wireless signal measurements indicative of the mobile station's location;

wherein (a) and (b) following:

(a) the first location technique determines first location related information for each mobile station ($\mathbf{M_a}$) of some of the plurality of mobile stations, using values that are indicative of a signal time delay between the mobile station $\mathbf{M_a}$ and one or more of the terrestrial stations, wherein two way signal communication between $\mathbf{M_a}$ and at least one of the one or more of the terrestrial stations is established for obtaining the signal time delay,

wherein the first location technique determines the first location related information by determining a geographical extent, or location, common to a plurality of loci of locations, each locus determined using locations satisfying one or more predetermined location equations, each of the equations dependent upon the values for offsetting a corresponding one of the loci from at least one of the terrestrial stations, and

(b) the second location technique determines second location related information, for each mobile station ($\mathbf{M_b}$) of some of the plurality of mobile stations, using a geographical extent obtained from a conversion of data indicative of transmission times for wireless signals: transmitted from a plurality of non-terrestrial transmitting stations above and not supported on the Earth's surface, and ~~wireless signals~~ received by $\mathbf{M_b}$, or another of the plurality of mobile stations ~~($\mathbf{M_e}$), from a plurality of non-terrestrial transmitting stations above and not supported on the Earth's surface~~,

~~wherein for each of a plurality of the non-terrestrial transmitting stations, said second location related information is dependent upon corresponding spatial range data between: (i) $\mathbf{M_b}$ or the another mobile station $\mathbf{M_e}$, and (ii) the non-terrestrial transmitting station,~~

~~wherein each of the spatial range data is determined using a corresponding transmission time for a wireless signal transmitted by a corresponding one of the non-terrestrial transmitting stations and received by the mobile station $\mathbf{M_b}$ or $\mathbf{M_e}$;~~

comprising:

first receiving, at a node of a network, an instance ($\mathbf{I_1}$) of the first location related information as an output by an implementation of the first location technique, the instance $\mathbf{I_1}$ including a first estimate of a location for a first of the mobile stations at a time ($\mathbf{T_1}$) and at an actual location ($\mathbf{L_1}$), wherein the first mobile station is an instance of $\mathbf{M_a}$;

wherein the first estimate is not dependent upon a geographical extent obtained from any conversion of data indicative of transmission times for wireless signals transmitted from a plurality of non-terrestrial transmitting stations above and not supported on the Earth's surface;

~~if any location estimate (**LE**) for the first mobile station at time $\mathbf{T_1}$ and the location $\mathbf{L_1}$ is received at the node, wherein **LE** is included in second location related information for an implementation of the second location technique, then **LE** is received at the node as different data from that of the receiving of the first estimate in the first receiving step;~~

second receiving at the node, an instance ($\mathbf{I_2}$) of the second location related information as an output by an implementation of the second location technique, the instance $\mathbf{I_2}$ including a second estimate of a location for a second of the mobile stations at a time ($\mathbf{T_2}$) and at an actual location ($\mathbf{L_2}$), wherein the second mobile station is an instance of $\mathbf{M_b}$;

wherein the implementation of the second location technique also uses data indicative of a range of the second mobile station relative to one of the terrestrial stations for determining the second estimate;

performing at the node, for each the instances $\mathbf{I_1}$ and $\mathbf{I_2}$, at least one computation that is dependent on a geographical location of a corresponding one of the first and second mobile stations;

~~wherein at least one of: (a) the first and second mobile stations are different, (b) the actual locations $\mathbf{L_1}$ and $\mathbf{L_2}$ are different, and (c) the times $\mathbf{T_1}$ and $\mathbf{T_2}$ are different;~~

first transmitting, to a first predetermined destination of the network, first resulting information for locating the first mobile station, wherein the first resulting information is obtained using the instance $\mathbf{I_1}$ of said first location related information; and

second transmitting, to a second predetermined destination of the network, second resulting information for locating the second mobile station, wherein the second resulting information is obtained using the instance $\mathbf{I_2}$ of said second location related information.

413. (Previously Presented) The method of Claim 412, wherein for the second mobile station, the implementation of the second location technique is improved by the data indicative of a range of the second mobile station from the one terrestrial station, and the one terrestrial station is stationary.

414. (Previously Presented) The method of Claim 412, wherein the first and second receiving steps receive each of the instances $\mathbf{I_1}$ and $\mathbf{I_2}$ in a common predetermined location related data format, wherein for a mobile station (**M**) being located, the format includes the following fields:

(a) a geographical location estimate of **M**;

(b) a timestamp; and

(c) a measurement indicative of the likelihood of **M** being in the geographical location estimate.

415. (Previously Presented) The method of Claim 414, wherein the common predetermined location related data format includes a descriptor from a source of the geographical location estimate, wherein the descriptor includes information descriptive of a reason or process performed at the source.

416. (Currently Amended) The method of Claim 412, wherein at least one of the loci is determined at a location different from that of the first mobile station, and

wherein the range of the second mobile station is determined using a wireless signal time difference of arrival from the plurality of non-terrestrial transmitting stations.

417. (Previously Presented) The method of Claim 412, wherein said first and second mobile stations are different.

418. (Previously Presented) The method of Claim 417, further including a step of receiving an additional location estimate of the first mobile station, and further including a step of determining the first resulting information using a preference for one of the first estimate and the additional location estimate.

419. (Currently Amended) The method of Claim 412, wherein said locations $\mathbf{L_1}$ and $\mathbf{L_2}$ are different, and the first and second mobile stations are a same one of the mobile stations.

420. (Previously Presented) The method of Claim 412, wherein said first and second mobile stations are the same.

421. (Previously Presented) The method of Claim 420, wherein each of the first and second estimates is substantially unaffected by the other.

422. (Previously Presented) The method of Claim 412, wherein said times $\mathbf{T_1}$ and $\mathbf{T_2}$ are different.

Please cancel Claims 423, and 424.

425. (Currently Amended) The method of Claim 412 [[424]], further including a step of requesting at least one of the instances $\mathbf{I_1}$ and $\mathbf{I_2}$ via a transmission on the network.

426. (Currently Amended) The method of Claim 412 [[424]], wherein the first and second transmitting steps are from the node.

Please cancel Claim 427.

428. (Previously Presented) The method of Claim 412, wherein the performing step includes determining the first or second predetermined destination as a destination (**DST**) on the network, the destination **DST** being dependent on a geographical location of a corresponding one of the first and second mobile stations.

Please cancel Claim 429.

430. (Currently Amended) The method of Claim 412, further including a step[[s]] of:

third receiving at the node, additional location related information ~~output by some location technique activated~~ for locating an additional one of the mobile stations, the additional location related

information not dependent upon a signal time delay ~~the third location related information for the additional mobile station at a time (T_2) and at an actual location (L_2); and~~

~~accessing at least one value indicative of a performance of the additional location related information in locating the additional mobile station~~.

Please cancel Claim 431.

432. (Currently Amended) The method of Claim 412, wherein at least one of said first and second resulting information ~~for said second mobile station~~ includes a timestamp indicative of when said ~~second~~ at least one resulting location information is applicable to a corresponding one of the locations L_1 and L_2 ~~of said second mobile station~~, and a confidence value indicative of a probability that the corresponding one of the locations L_1 and L_2 is represented by the at least one resulting location information.

Please cancel Claim 433.

434. (Previously Presented) The method of Claim 412 further including a step of providing for at least one of said first and second resulting information, a presentation for presenting on a visual display, wherein said presentation includes information related to a corresponding mobile station location accuracy or reliability of one of said first and second mobile stations.

435. (Previously Presented) The method of Claim 412, further including the steps of:

determining a location estimate of one of the first and second mobile stations, said location estimate obtained as a function of a position of a known geographical feature different from the terrestrial stations, and

providing the location estimate as part of a corresponding one of the first and second resulting information for the one mobile station.

Please cancel Claim 436.

437. (Previously Presented) The method of Claim 412 further including for the second resulting information, presentation information, wherein said presentation information is determined according to an expected accuracy of said second resulting information.

438. (Currently Amended) The method of Claim 412, further including the steps of:

receiving an additional location estimate of the first mobile station after receiving the instance I_1; and

obtaining for the additional location estimate, [[an]] additional resulting information for transmitting to the first predetermined destination, wherein the additional resulting information includes presentation information for indicating a change in location accuracy from the first resulting information.

439. (Previously Presented) The method of Claim 412, further including a step of receiving a resulting location for at least one mobile station (**M**), different from, or one of, the first and second mobile stations, wherein the resulting location is obtained from a performance of a third location technique for determining mobile station locations, wherein (1) through (3) following hold:

(1) the third technique is dependent upon signal data, wherein the signal data is obtained from wireless signals communicated between the mobile station **M** and the plurality of terrestrial stations;

(2) the third technique is dependent upon (2-i) and (2-ii) following: (2-i) a representation of each of a plurality of geographical locations, and (2-ii) for each of the geographical locations, corresponding wireless signal information previously obtained using transmissions between some mobile station, different from **M**, and the plurality of terrestrial stations, when the some mobile station transmits from approximately the geographical location, and

(3) the third technique uses the signal data for determining one or more likely location estimates for **M** by identifying a similarity in a pattern between (3-i) and (3-ii) following: (3-i) one or more wireless signal characteristics of the signal data, and (3-ii) the information of (2-ii) for a collection of one or more of the plurality of geographical locations.

440. (Previously Presented) The method of Claim 412, further including a step of providing a network transmission for modifying at least one installed implementation of the first location technique at a remote site.

441. (Currently Amended) The method of Claim 412, further including at least some of the following steps:

(i) activating at least one common predetermined mobile station location related component for determining each of the first and second resulting information, wherein the location related component is not activated for locating a corresponding one of the first and second mobile stations until after at least one of said instances $\mathbf{I_1}$ and $\mathbf{I_2}$ is obtained;

(ii) providing information for activating the implementations of the first and second location techniques, wherein said information for activating is output by a predetermined common activation component that routes said information for activating to the implementations of the first and second location techniques;

(iii) for the instances $\mathbf{I_1}$ and $\mathbf{I_2}$, a further step of accessing at least a portion of a predetermined common data structure that specifies at least most location related attributes of said instances $\mathbf{I_1}$ and $\mathbf{I_2}$, wherein the location related attributes do not identify a geographical location; and

(iv) for at least one of said first and second resulting information, a further step of ~~determining an~~ obtaining an attribute indicative of ~~one or more~~ each of: an error or accuracy in a geographical extent for locating a corresponding one of the first and second mobile stations, ~~an accuracy in a geographical extent for locating the corresponding one of the first and second mobile stations,~~ and data indicative of a likelihood of the corresponding one of the first and second mobile stations being located by a location estimate of the at least one of the first and second resulting information.

442. (Previously Presented) The method of Claim 179, wherein for at least one location (**L**) of the mobile station, a corresponding location estimate is received, wherein the corresponding location estimate is dependent upon an instance of the wireless timing signals of (a), and is dependent upon an instance of time delays of wireless signals of (b).

443. (Previously Presented) The method of Claim 179, wherein the data for the graphical presentation includes information for displaying an indication related to an accuracy of one or more locations of the mobile station.

444. (Previously Presented) The method of Claim 179, wherein the step of obtaining includes receiving from a location estimator an instance ($\mathbf{I_1}$) of the location related information, wherein the location estimator uses the wireless timing signals for determining a spatial relationship between the mobile station and each of the satellites.

445. (Previously Presented) The method of Claim 444, wherein the instance $\mathbf{I_1}$ is determined using additional data for improving on location information of the wireless timing signals of (a), wherein said additional data is received by the mobile station in a wireless communication between: the mobile station, and one of terrestrial transceivers.

446. (Previously Presented) The method of Claim 444, wherein the step of obtaining includes receiving from a location estimator an instance ($\mathbf{I_2}$) of the location related information, wherein the instance $\mathbf{I_2}$ is obtained from the time delays of the wireless signals of (b), wherein a time difference of arrival of the wireless signals between the mobile station and some of the transceivers is determined.

447. (Previously Presented) The method of Claim 374, wherein at least three of the steps (i) through (iv) are performed.

448. (Previously Presented) The method of Claim 140, further including a step of preferring information for the first location estimate over information for the second location estimate.

449. (Currently Amended) The method of Claim 121 further including one or more of (a) and (b) following:

(a) a step of modifying a confidence for at least said ~~second~~ resulting location estimate obtained from using the instance $\mathbf{I_2}$, wherein a modified confidence is obtained that depends ~~depending~~ upon a consistency with a previous location estimate[[s]] along a known route; and

(b) a step of comparing data of said ~~second~~ resulting location estimate obtained from using the instance $\mathbf{I_2}$, with a second data of a different location estimate ~~obtained from location information output by a location estimator different from a location estimator from which the second location information is received, wherein the data of said second resulting location estimate, and the second data are each one of: a velocity and an acceleration~~; and a step of modifying a confidence of said ~~second~~ resulting location estimate obtained from using the instance $\mathbf{I_2}$, depending upon a consistency between the data of said ~~second~~ resulting location estimate obtained from using the instance $\mathbf{I_2}$, and the second data.

450. (New) The method of Claim 119, wherein the second mobile station location estimator activates or receives an output from a coverage area analysis technique for locating the mobile station $\mathbf{M_1}$ when supplied with data obtained from wireless signal measurements communicated between the mobile station $\mathbf{M_1}$ and one or more of said plurality of the communication stations.

451. (New) The method of Claim 119, wherein the second mobile station location estimator activates or receives an output from a technique for locating the mobile station $\mathbf{M_1}$, when supplied with second data obtained from wireless signal measurements communicated between the mobile station $\mathbf{M_1}$, and one or more of said plurality of communication stations, said second technique determines a correspondence between (1) and (2) following: (1) at least one a first value derived from said second data, and (2) wireless survey data (**D**) wherein **D** is obtained using second values, wherein each second value is derived from mobile station wireless signal measurements at a known geographical location.

452. (New) The method of Claim 119, wherein the second mobile station location estimator activates or receives an output from a locus computing technique for locating the mobile station $\mathbf{M_1}$, when supplied with second data obtained from wireless signal measurements communicated between the mobile station $\mathbf{M_1}$, and two or more of said plurality of communication stations, wherein the locus computing technique utilizes measurements (**S**) of wireless signals from the second data for determining at least one locus of locations for the mobile station $\mathbf{M_1}$,

wherein at least one of said measurements **S** is obtained using a signal time delay between the mobile station $\mathbf{M_1}$, and at least one of the two or more communication stations; wherein there is two way wireless communication between mobile station $\mathbf{M_1}$ and at least one of the communication stations.

453. (New) The method of Claim 119, wherein the second mobile station location estimator activates or receives an output from a direction of arrival technique for locating the mobile station $\mathbf{M_1}$, when supplied with second data obtained from wireless signal measurements communicated between the mobile station $\mathbf{M_1}$ and one of said communication stations (**CS**), wherein the direction of arrival technique determines a location estimate of the mobile station $\mathbf{M_1}$ using, from the second data, a direction from which wireless signals arrive at **CS** from the mobile station $\mathbf{M_1}$.

454. (New) A method for locating each mobile station (**M**) of a plurality of terrestrial mobile stations, wherein there are wireless signal transmissions between each of the mobile stations **M** and a plurality of fixed location communication stations supported on the Earth, wherein each of the communications stations is operable for two way wireless communication with each of the mobile stations **M**, comprising:

(1) providing access to first and second mobile station location evaluators, wherein said location evaluators are able to determine information related to one or more location estimates of the mobile station **M** when the location evaluators are supplied with data obtained from wireless signal measurements indicative of a location of **M**;

wherein (A) and (B) following hold:

(A) said first location evaluator determines first geographical location related information for **M** using first data indicative of a delay time of a signal from at least one satellite to **M** for determining a spatial range between **M** and the at least one satellite;

(B) said second location evaluator determines second location related information by performing one or more of the techniques (i) and (ii) following when the second location evaluator is supplied with a corresponding instance of said data for performing the one or more techniques;

the above cited techniques are:

(i) a first technique for determining a location of the mobile station **M**, wherein a corresponding one of the instances includes measurements of wireless signals between the mobile station **M** and at least one of the communication stations, wherein the one instance is used to determine a geographic estimation for the mobile station **M** relative to the at least one communication station, wherein two way communication between the mobile station **M** and one of the communication stations is established for obtaining the measurements; and

(ii) a second technique for determining a particular location of the mobile station **M** by determining a correspondence between:

(a) wireless signal characteristics for wireless signals communicated between the mobile station **M** and a multiplicity of the communication stations, and

(b) a geographic location estimate for the particular location, wherein the geographic location estimate is dependent upon a similarity between the wireless signal characteristics, and previously obtained wireless signal characteristics for wireless communication between each of a plurality of mobile station locations, and the communication stations;

(2) first obtaining an instance of the first geographical location related information when provided by the first location evaluator;

(3) second obtaining an instance of the second geographical location related information when provided by the second location evaluator; and

(4) determining resulting location information of the mobile station **M** dependent upon at least one of: (a) a first value obtained from the instance of the first location related information, and (b) a second value obtained from the instance of the second location related information, wherein data indicative of a likelihood of the mobile station **M** being at a location represented by said resulting location information is determined.

455. (New) The method of Claim 454, wherein a geographical location for **M** from the first evaluator is given preference for locating at least some of the terrestrial mobile stations **M**.

456. (New) The method of Claim 454, wherein a geographical location for **M** from the second evaluator is given preference for location at least one of the terrestrial mobile stations **M**.

457. (New) The method of Claim 454, wherein geographical location information for **M** from the first evaluator, and geographical location information for **M** from the second evaluator are used in determining the resulting location information.

458. (New) The method of Claim 454, wherein the step of determining includes:

substantially discarding the instance of the first geographical location related information for **M**; and

subsequently determining a geographical location for **M** for inclusion in the resulting location information using the second value.

459. (New) The method of Claim 454, wherein the second location evaluator performs the second technique.

460. (New) The method of Claim 461, wherein the second location evaluator performs a pattern matching operation between the wireless signal characteristics, and the previously obtained wireless

signal characteristics for wireless communication between each of a plurality of mobile station locations, and the communication stations.

461. (New) A method for locating a terrestrial mobile station, wherein said method uses wireless signal measurements obtained from transmissions between said mobile station and a network having a plurality of communication stations supported on the Earth, wherein each of said communication stations includes one or more of a transmitter and a receiver for wirelessly communicating with said mobile station,

wherein there are first and second mobile station location techniques for outputting mobile station location related information when said location techniques are supplied with corresponding wireless signal related data;

wherein said first location technique estimates a location of the mobile station using values, obtained from wireless signals received at the mobile station from one or more satellites, wherein the values are indicative of signal time delay from the satellites to the mobile station; and

wherein said second location technique estimates a location of the mobile station by using one or more measurements for a wireless signal between the mobile station and at least one of the communication stations, **CS**, for determining a geographical extent for the mobile station, the measurements dependent upon a location of the at least one communication station **CS**;

wherein there is two way wireless communication between the mobile station and the network in order to obtain the measurements for the second location technique;

comprising:

first obtaining, from said first location technique, first location related information for a location of the mobile station;

second obtaining, from said second location technique, second location related information for a location of the mobile station; and

determining resulting location information of the mobile station using at least one of: a first value obtained from said first location related information, and a second value obtained from said second location related information, wherein data indicative of a likelihood of the mobile station being at a location represented by said resulting location information is obtained using one of the first location related information and the second location related information.

462. (New) The method of Claim 461, wherein the second obtaining step includes obtaining the second location related information from an instance of the second technique wherein the measurements are indicative of an angle of arrival of a wireless signal at the communication station, **CS**, and from the mobile station.

463. (New) The method of Claim 461, wherein the second obtaining step includes obtaining the second location related information from an instance of the second technique that determines a location of said mobile station by using a statistical correlation for correlating (a) and (b) following:

(a) the measurements; and

(b) data, **D**, wherein for each location L of a plurality of locations, said data **D** includes one or more wireless signal measurements related to a wireless communication between some mobile station that is substantially at **L**, and at least one of the communication stations;

wherein said correlation is used for determining a likely geographical estimate, **GR**, for a location for the mobile station and data indicative of a probability that the mobile station is within the likely geographical estimate **GR**.

464. (New) The method of Claim 461, wherein for at least one location of the mobile station, the step of determining includes:

a step of obtaining first data indicative of a dependence of the resulting location information on the first location related information; and

subsequently using the first data and the second value for obtaining a geographical location estimate of the at least one location, the geographical location estimate included in the resulting location information.

465. (New) The method of Claim 464, wherein the step of determining includes discarding the first location related information; and then obtaining the geographical location estimate using the second location related information.

466. (New) The method of Claim 461, wherein for at least one location of the mobile station, the step of determining includes:

a step of obtaining second data indicative of a dependence of the resulting location information on the second location related information; and

subsequently using the second data and the first value for obtaining a geographical location estimate of the at least one location, the geographical location estimate included in the resulting location information.

467. (New) The method of Claim 466, wherein the step of determining includes discarding the second location related information; and then obtaining the geographical location estimate using the first location related information.

468. (New) A method for locating a plurality of terrestrial mobile stations using wireless signal measurements obtained from transmissions between the mobile stations and a network having a plurality

of terrestrial communication stations, wherein each of said communication stations includes a transmitter and a receiver for wireless two way communications with the mobile stations; and

wherein one or more mobile station location estimators are accessible such that as a result of the location estimators being supplied with corresponding input for locating any one of the mobile stations (**M**), each of the location estimators performs at least one of the following techniques:

(i) a first technique for determining first location information for locating the mobile station **M**, the first location information including a location determined using signal time delay related data for a signal transmitted from at least one non-terrestrial wireless communication station that is above and not supported on the Earth's surface, the signal received at the mobile station **M**; and

(ii) a second technique for determining second location information for locating the mobile station **M**, the second location information determined using input data obtained from time delay data for wireless signal communication between the mobile station **M**, and at least one of the terrestrial communication stations $\mathbf{CS_1}$, and

wherein there is two way wireless communication between the mobile station **M** and the network for obtaining the input data;

comprising:

receiving location requests for locating the mobile stations;

issuing, in response to the location requests, corresponding requests for information related to locations of the mobile stations, the corresponding requests for requesting activation of at least one of the location estimators;

obtaining, for a corresponding location of each mobile station ($\mathbf{M_i}$) requested to be located, at least one of: a corresponding instance of the first location information for $\mathbf{M_i}$, and a corresponding instance of the second location information for $\mathbf{M_i}$;

transmitting, to a site on a network, a location estimate of $\mathbf{M_i}$ dependent upon the at least one of the corresponding instance of the first location information for $\mathbf{M_i}$, and a corresponding instance of the second location information, wherein the site accesses location estimate of $\mathbf{M_i}$ for a predetermined purpose;

wherein information related to a correctness of the location estimate of $\mathbf{M_i}$ is also obtained for transmission in the transmitting step;

wherein for each of some of the mobile stations requested to be located, the corresponding instance of the first location information therefor is given a preference in obtaining the corresponding location estimate for transmission in the transmitting step; and

wherein for each of some of the mobile stations, their corresponding information related to a correctness is dependent upon their corresponding instances of the second location information.

469. (New) The method of Claim 468, wherein for at least one of the mobile stations requested to be located, the information related to a correctness includes a value indicative of a likelihood of the at least one mobile station being identified by the location estimate for the at least one mobile station.

470. (New) The method of Claim 468, wherein for at least one of the mobile stations requested to be located, the information related to a correctness includes data indicative of an extent having the location estimate for the at least one mobile station therein.

471. (New) The method of Claim 468, wherein for at least one of the mobile stations requested to be located, the location estimate therefor is dependent upon the corresponding instance of the first location information, and the corresponding instance of the second location information.

472. (New) The method of Claim 468, further including, for at least one of the mobile stations requested to be located, providing the preference to the corresponding instance of the first location information over the corresponding instance of the second location information, when the corresponding instance of the second location information is obtained for the at least one mobile station.

473. (New) The method of Claim 468, wherein the information related to a correctness includes an accuracy of the location estimate.

474. (New) The method of Claim 468, further including:

receiving, for at least first and second of the mobile stations, their corresponding instances of the first location information at a predetermined site;

wherein for the first mobile station, the received corresponding instance of the first location information is used in determining a location of the first mobile station; and

wherein for the second mobile station, the received corresponding instance of the second location information is used in determining a location of the second mobile station.

475. (New) The method of Claim 468, wherein for at least one of the mobile stations requested to be located, a location $\mathbf{L}_1$ of the at least one mobile is estimated using a location estimate obtained from the corresponding instance of the first location information for the at least one mobile station, and at a different location $\mathbf{L}_2$ of the at least one mobile, $\mathbf{L}_2$ is estimated using a location estimate obtained from the corresponding instance of the second location information for the at least one mobile station.

476. (New) The method of Claim 475, wherein for locating the at least one mobile at the location, $\mathbf{L}_2$, the corresponding instance of the second location information for the at least one mobile is given a preference over a corresponding instance of the first location information for locating the at least mobile station at $\mathbf{L}_2$.

477. (New) The method of Claim 468, wherein for at least one of the mobile stations requested to be located, the information related to a correctness includes data for a confidence that the one mobile station is located by the location estimate for the one mobile station.

478. (New) The method of Claim 468, wherein for at least one of the mobile stations, the information related to a correctness includes data for an error measurement related to the one mobile station being located by the location estimate for the one mobile station.

479. (New) The method of Claim 468, wherein for at least one of the mobile stations, wherein the transmitting step transmits the information related to the correctness together with the location estimate for the one mobile station for graphically presenting of each on a common map.

480. (New) The method of Claim 468, further including, for at least one of the mobile stations, combining the corresponding instance of the first location information and the corresponding instance of the second location information for obtaining the location estimate of the one mobile station.

481. (New) The method of Claim 468, wherein for a first of the mobile stations, a performance of the second technique includes a performance of one or more of:

(i) a third technique for determining, as a result, at least one location estimate or locus for said first mobile station by using an instance of said corresponding input having timing measurements indicative of one of: a time of arrival of wireless signals, and a time difference of arrival of wireless signals between the first mobile station and at least one of the communication stations $\mathbf{CS_1}$ for determining a range of the first mobile station from $\mathbf{CS_1}$, said range varying with varying values of the timing measurements, wherein the signals for obtaining the timing measurements are communicated during wireless signal transmissions between the first mobile station and $\mathbf{CS_1}$, with at least one of the transmissions being from the first mobile station to $\mathbf{CS_1}$, and wherein said first technique outputs the result from a site different from the location of the first mobile station;

(ii) a fourth technique for determining one or more candidate locations of the first mobile station, wherein each of said candidate locations is determined using, for at least some one of the communication stations $\mathbf{CS_2}$, an instance of said corresponding input for a wireless signal direction of arrival that is an angular orientation about the communication station $\mathbf{CS_2}$ of a direction of the first mobile station determined using a measurement of a wireless signal angle of arrival of wireless signals transmitted between the first mobile station and the communication station $\mathbf{CS_2}$;

wherein for at least one occurrence when both said first and fourth techniques are used for locating the first mobile station at substantially a same location **L**, (1) and (2) following:

(1) at least one of said candidate locations is substantially unaffected by each said result obtained from every instance of said first technique performed by said location estimators for locating the first mobile station substantially at **L**, and

(2) at least one result from an instance of said first technique is substantially unaffected by each of said candidate locations for locating the first mobile station substantially at **L**.

482. (New) The method of Claim 468, wherein for a first of the mobile stations, a performance of the first technique includes a performance of a technique for determining location information for said first mobile station, using timing values from an instance $\mathbf{I_S}$ of said corresponding input obtained from satellite signals received at the first mobile station from a plurality of satellites, and wherein said instance $\mathbf{I_S}$ also includes additional data for improving on location information for the first mobile station obtained from said satellite signals, wherein said additional data is received by the first mobile station in a wireless communication between: said first mobile station, and a communication station of a collection of one or more of the plurality of terrestrial communication stations;

wherein each communication station of said collection is one of: (A) a fixed location base station of a commercial mobile radio service provider, and (B) operable for providing a wireless communication for responding to a telephony emergency call placed with the commercial mobile radio service provider.

483. (New) The method of Claim 468, wherein for a first of the mobile stations, a performance of the second technique includes a performance of a technique, wherein said technique determines a location estimate from a pattern of wireless signal characteristics between: (a) one or more of the communication stations, and (b) said first mobile station;

wherein said technique performs (c) and (d) following:

(c) accessing information obtained via an association that associates, for each geographical location (**L**) of a plurality of geographical locations, (c1) and (c2) following:

(c1) a representation of the geographical location **L**, and

(c2) for the geographical location **L**, corresponding signal information indicative of at least one characteristic of a signal **S** previously transmitted between some mobile station, $\mathbf{M_L}$, and one or more of the communication stations, when the some mobile station $\mathbf{M_L}$ transmitted **S** from approximately the geographical location **L**;

wherein for at least most of said geographical locations **L**, $\mathbf{M_L}$ is different from the first mobile station;

(d) determining one or more likely location estimates for the first mobile station from a similarity between (d1) and (d2) following:

(d1) data for one or more signal characteristics determined from wireless signals communicated between the first mobile station and the communication stations, wherein said signal characteristics include at least a first measurement of a non-line

of sight signal transmission between the first mobile station and one of the communication stations, and

(d2) a portion of the accessed information that is indicative of the signal information of (c2).

484. (New) A mobile station location system for a network having plurality of terrestrially based stationary location communication stations for wirelessly communicating with a multiplicity of mobile stations, comprising:

a network node for receiving a plurality of network requests for location indicative data of a plurality of the mobile stations;

a selection process, wherein in response to the requests received by the network node, and for each mobile station ($\mathbf{M_n}$) of the plurality of mobile stations, the selection process selectively communicates with each of one or more location providing sources for providing location information for $\mathbf{M_n}$ to a predetermined interface of the network node;

wherein for a corresponding location for each mobile station ($\mathbf{M_i}$) of some of the plurality of mobile stations, (a-1) and (a-2) occur:

(a-1) the predetermined interface receives the location information for $\mathbf{M_i}$ provided by a first of the location providing sources, wherein the first location providing source determines the location information for $\mathbf{M_i}$ by a conversion of signal timing data to a geographical extent of $\mathbf{M_i}$, wherein the signal timing data includes: for each of a plurality of transmitting stations, located above and not supported on the Earth's surface, an elapsed time of one or more wireless signals transmitted from the transmitting stations, and received by the mobile station $\mathbf{M_i}$; and

(a-2) the corresponding location indicative data for the mobile station $\mathbf{M_i}$ is obtained using the location information for $\mathbf{M_i}$;

wherein for a corresponding location for each mobile station ($\mathbf{M_k}$) of some of the plurality of mobile stations, (b-1) and (b-2) occur:

(b-1) the network node receives the location information for $\mathbf{M_k}$, the location information for $\mathbf{M_k}$ dependent upon information indicative of a location of at least one corresponding communication station ($\mathbf{CS_k}$) of the communication stations in two way wireless communication with $\mathbf{M_k}$; and

(b-2) the corresponding location indicative data for the mobile station $\mathbf{M_k}$ is obtained using the location information for $\mathbf{M_k}$ received by the network node;

wherein for at least one mobile station ($\mathbf{M_p}$) of the mobile stations $\mathbf{M_k}$ and the corresponding location for $\mathbf{M_p}$, the location indicative data therefor is not obtained using data indicative of a spatial range between the mobile station $\mathbf{M_p}$ and one or more transmitting stations above and not supported on the Earth's surface;

a destination determination process, wherein for each of the mobile stations $\mathbf{M_n}$, the destination determination process selectively determines a corresponding network destination for location indicative data for $\mathbf{M_n}$ to be output by the network node, wherein the network destination accesses the location indicative data for $\mathbf{M_n}$ in performing a location based service related to a corresponding one of the requests for the location indicative data for $\mathbf{M_n}$ received by the network node.

485. (New) The system of Claim 484, wherein for at least one mobile station ($\mathbf{M_j}$) of the mobile stations $\mathbf{M_k}$, the location information for $\mathbf{M_j}$ corresponds to a wireless coverage extent for the corresponding communication station, wherein the corresponding communication station is in two way wireless communication with $\mathbf{M_j}$.

486. (New) The system of Claim 484, wherein the network node activates the destination determination process for outputting, for at least some mobile stations ($\mathbf{M_j}$) of the mobile stations for each $\mathbf{M_n}$, wherein the corresponding location indicative data for $\mathbf{M_j}$ provides data in a common data format which is independent of the corresponding network destination, the common data format having a common predetermined semantics for interpretation thereof, the common data format including at least some of: data representing a location for $\mathbf{M_j}$, data indicative of a confidence in the data representing the location, data indicative of a timestamp, data indicative of a processing performed.

487. (New) The mobile location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of some of the plurality of mobile stations, the selection component selectively communicates with the first location providing source, wherein the location information for $\mathbf{M_j}$ is also dependent upon a location of at least one of the communication stations.

488. (New) The mobile location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of some of the mobile stations $\mathbf{M_k}$, the selection process selectively communicates with one of the location providing sources that determines an instance of the location information for $\mathbf{M_j}$ using a locus of locations relative to at least one of the communication stations, wherein for locations identified by said locus of

locations, a signal time delay dependent condition is satisfied for a wireless signal communicated between the at least one communication station and $\mathbf{M_j}$.

489. (New) The location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of some of the mobile stations $\mathbf{M_k}$, the selection process selectively communicates with one of the location providing sources that determines an instance of the location information for $\mathbf{M_j}$ by:

(i) obtaining access to a computational model that is determined using an association between geographical locations in a wireless coverage area, and signal data obtained from the geographical locations, wherein for each of the geographical locations, **L**, the association associates: (i-1) a representation of **L**, and (i-2) a portion of the signal data for measurements, m_L, of wireless signals communicated between: a mobile station, $\mathbf{M_L}$, approximately at the location **L**, and the communication stations; and

(ii) supplying to the computational model data for measurements, $\mathbf{m_j}$, of wireless signals communicated between $\mathbf{M_j}$ and the communication stations;

wherein the instance of the location information for $\mathbf{M_j}$, output by the one location providing source, is dependent upon the computational model determining a similarity between the data for the measurements $\mathbf{m_j}$, and the signal data of the association;

wherein the measurements $\mathbf{m_L}$ for at least some of the locations **L** include one of: measurements of a variation in wireless signal strengths within the coverage area, and measurements of a variation in wireless signal time delay within the coverage area.

490. (New) The mobile location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of some of the mobile stations $\mathbf{M_k}$, the selection process selectively communicates with one of the location providing sources that determines the location information for $\mathbf{M_j}$ as an offset of the mobile station $\mathbf{M_j}$ from at least one of the communication stations.

491. (New) The mobile location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of some of the plurality of mobile stations, the selection process selectively communicates with one of the location providing sources that determines an instance of the location information for $\mathbf{M_j}$ using a direction of arrival technique, wherein the technique determines a geographic estimation for a location of $\mathbf{M_j}$, by using a direction from which wireless signals arrive at one of the communication stations from the mobile station $\mathbf{M_j}$.

492. (New) The mobile location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of some of the plurality of mobile stations, the selection process selectively communicates with a second of the location providing sources that determines an instance of the location information for $\mathbf{M_j}$ from a locus computing technique, wherein the technique determines a geographic estimation for $\mathbf{M_j}$ by utilizing timing measurements for determining a locus of locations for $\mathbf{M_j}$;

wherein the timing measurements are a function of a signal time delay between the mobile station $\mathbf{M_j}$, and at least one of the communication stations **CS**.

493. (New) The mobile location system of Claim 484, further including a data store for caching a location estimate of each at least some of the plurality of mobile stations, wherein the data store resides on the network and distinct from the mobile stations,

wherein for each of the location estimates and a corresponding one of the requests resulting in the location estimate, the location estimate is cached in the data store, and remains in the data store for a subsequent request the location estimate is used for obtaining an instance of the location indicative data output be the network node.

494. (New) The location system of Claim 484, wherein for at least one mobile station ($\mathbf{M_j}$) of the mobile stations $\mathbf{M_n}$, the mobile station $\mathbf{M_j}$ is an instance of the mobile station $\mathbf{M_i}$ and is an instance of the mobile station $\mathbf{M_k}$.

495. (New) The location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of at least some of the mobile stations $\mathbf{M_n}$, the network node accesses data indicative of an accuracy of a location estimate provided by an instance of the location information for $\mathbf{M_j}$ received from one of the location providing sources, wherein the data indicative of an accuracy is used for activating one or more processes for obtaining an additional location estimate.

496. (New) The location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of at least some of the mobile stations $\mathbf{M_n}$, the network node determines the location indicative data for $\mathbf{M_j}$.

497. (New) The mobile location system of Claim 484, wherein for one of the requests for locating one of the plurality of mobile stations ($\mathbf{M_j}$), the network node receives a plurality of instances of the location information for $\mathbf{M_j}$, at least two of the instances obtained using different wireless location technologies.

498. (New) The location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of at least some of the mobile stations $\mathbf{M_n}$, the location indicative data therefor includes a likelihood that the mobile station $\mathbf{M_j}$ resides in a geographical area represented by the location indicative data therefor.

499. (New) The location system of Claim 484, further including a component ($\mathbf{C_f}$) for one of interpolating and extrapolating a location, for each mobile station of at least some of the mobile stations $\mathbf{M_n}$, from locations **L** of other mobile stations.

500. (New) The location system of Claim 484, further including a combiner component for receiving, for each mobile station ($\mathbf{M_j}$) of at least some of the mobile stations $\mathbf{M_n}$, a first instance of the location information for $\mathbf{M_j}$ from the first location providing source, and a second instance of the location information for $\mathbf{M_j}$ from the second location providing source, and combining the first and second instances to obtain the location indicative data for $\mathbf{M_j}$, the combining including identifying data indicative of at least one location common to both the first instance and the second instance.

501. (New) The location system of Claim 484, wherein for each mobile station ($\mathbf{M_j}$) of at least some of the mobile stations $\mathbf{M_n}$, at least one of an instance of the location information for $\mathbf{M_j}$ and an instance of the location indicative data for $\mathbf{M_j}$ includes information descriptive of location processing performed for locating $\mathbf{M_j}$.

502. (New) A mobile station location system for locating each mobile station ($\mathbf{M_0}$) of a plurality of mobile stations (said plurality of mobile stations denoted $\mathbf{\Sigma}$),

wherein the location system provides communications for obtaining information indicative of locations of the mobile stations of $\mathbf{\Sigma}$ by activating one or more of mobile station location estimating sources;

wherein for locating each of a plurality of the mobile stations of $\mathbf{\Sigma}$, a first of the one or more estimating resources provides a corresponding of first location information that is dependent upon a result from a location technique included in the category (a) of location techniques following, and for locating each of a plurality of the mobile stations of $\mathbf{\Sigma}$, corresponding second location information is obtained that is dependent upon a result from a location technique of the category (b) of location techniques following:

(a) a first category of one or more signal processing location techniques, wherein each of the signal processing location techniques estimates a location of at least one of the mobile stations ($\mathbf{M_a}$) of $\mathbf{\Sigma}$ by determining location information for $\mathbf{M_a}$ by a conversion of signal timing data to a geographical extent of $\mathbf{M_a}$, wherein the signal timing data includes: for each

of a plurality of transmitting stations, located above and not supported on the Earth's surface, an elapsed time of one or more wireless signals transmitted from the transmitting stations, and received by the mobile station $\mathbf{M_a}$;

(b) a second category of one or more location techniques, wherein each of the location techniques of the second category outputs corresponding data for locating of each mobile station ($\mathbf{M_b}$) of a plurality of the mobile stations of $\mathbf{\Sigma}$, the corresponding data dependent upon wireless communication between the mobile station $\mathbf{M_b}$ and at least one of a plurality of terrestrially based stationary communication stations of a wireless network, wherein the corresponding data is obtained using information for identifying a location of one of the terrestrially based stationary location communication stations, **CS**, and

wherein the wireless communication includes a plurality of receptions of wireless signal transmissions communicated between the mobile station $\mathbf{M_b}$ and **CS**, with at least one of the transmissions being received at **CS**;

the location system comprising:

a location data resource for the network, wherein for each of the mobile stations $\mathbf{M_0}$ the location data resource including a network interface that provides a location estimate of the mobile station $\mathbf{M_0}$ to a predetermined network destination;

wherein the location data resource includes a selection process that performs a selection resulting in preferring an instance ($\mathbf{I_1}$) of the corresponding first location information for $\mathbf{M_0}$ being an instance of $\mathbf{M_a}$, for obtaining the location estimate over an instance ($\mathbf{I_2}$) of the corresponding second location information for $\mathbf{M_0}$ being an instance of $\mathbf{M_b}$.

503. (New) The system of Claim 502, wherein the location data resource receives $\mathbf{I_1}$ when available, and the location data resource receives $\mathbf{I_2}$ when available.

504. (New) The system of Claim 502, wherein for at least one of the mobile stations, $\mathbf{M_1}$, the corresponding second location information is obtained by identifying a similarity between (i) and (ii) following:

(i) at least a portion of signal location characteristic data obtained from each of a plurality of locations in a wireless coverage area corresponding to the plurality of the communication stations, the portion obtained using signal transmissions from a mobile station different from $\mathbf{M_1}$, and

(ii) a corresponding portion of signal location characteristic data of the wireless signal measurements communicated between $\mathbf{M_1}$ and at least one of the communication stations.

505. (New) The system of Claim 502, wherein for at least one of the mobile stations, $\mathbf{M_1}$, the corresponding the second location information is obtained by utilizing timing measurements of wireless signals between the mobile station $\mathbf{M_1}$ and the plurality of terrestrially based communication stations for determining a geographical range of the mobile station $\mathbf{M_1}$ from one of the terrestrially based communication stations, **CS**;

wherein the timing measurements are used to determine a signal time delay between the mobile station $\mathbf{M_1}$, and **CS**, and

wherein for obtaining the timing measurements, there is a plurality of wireless signal transmissions between the mobile station $\mathbf{M_0}$ and **CS**, with at least one of the transmissions being from the mobile station $\mathbf{M_1}$ to **CS**.

506. (New) The system of Claim 502, wherein for at least one of the mobile stations, $\mathbf{M_1}$, the corresponding the second location information includes information for identifying a coverage area of at least one of the terrestrially based communication stations.

507. (New) The system of Claim 502, wherein for at least one instance of the mobile station $\mathbf{M_0}$, the selection process selects one of: the instance $\mathbf{I_1}$, and the instance $\mathbf{I_2}$ according to a result indicative of wireless signaling or environmental characteristics of a geographical area.

508. (New) The method of Claim 251, wherein a plurality of the steps (i) through (iii) are performed.

509. (New) The method of Claim 97, wherein the first collection includes a first location estimation for a first location of the mobile station **M** obtained using the first technique, and a second location estimation for a second location of the mobile station **M** using the second technique.

510. (New) The method of Claim 97, wherein a location estimate for **M** is obtained that is a result of a comparison of at least a portion of the geographic location information obtained from different ones of the first, second and third techniques.